

US-PAT-NO: 3802618

DOCUMENT-IDENTIFIER: US 3802618 A

TITLE: SEND AND RETURN ENVELOPE

DATE-ISSUED: April 9, 1974

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Wiessner; Martin Gerald	Country Club Hills	IL	60477	N/A
US-CL-CURRENT:	229/304, 229/71, 229/92.3			

09328417  
6/15/02

ABSTRACT: A send and return envelope having printed or typed addresses on only one side thereof when in an open position and which discloses the appropriate return address as well as directing address both during the original mailing and the return mailing. The envelope includes a pocket portion and a flap portion formed with an opening or window. For the original mailing the flap portion is foldable upon the pocket along a first fold line with the opening disclosing the appropriate directing and return addresses. Upon receipt of the envelope, a part of the flap portion is removable and the remaining flap portion is foldable upon the pocket portion along a second fold line in such manner as to leave exposed only the appropriate directing and return addresses for the return mailing.

5 Claims, 4 Drawing figures

Number of Drawing Sheets: 1

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Abstract Text - ABTX (1): A send and return envelope having printed or typed addresses on only one side thereof when in an open position and which discloses the appropriate return address as well as directing address both during the original mailing and the return mailing. The envelope includes a pocket portion and a flap portion formed with an opening or window. For the original mailing the flap portion is foldable upon the pocket along a first fold line with the opening disclosing the appropriate directing and return addresses. Upon receipt of the envelope, a part of the flap portion is removable and the remaining flap portion is foldable upon the pocket portion along a second fold line in such manner as to leave exposed only the appropriate directing and return addresses for the return mailing.

Brief Summary Text - BSTX (3): Heretofore, many types of send and return envelopes have been developed. These prior envelopes, however, often have been cumbersome or confusing to use, both to the sender and the recipient. They also have generally required printed or typed information on two different sides of the envelope or on separate insertable parts, which significantly increased their manufacturing cost or necessitated writing on two sides thereof or insertion of the envelope twice into the typewriter by the user. When attempts have been made to provide send and return envelopes which were printed or typed on only one side, it has been necessary to omit certain information, such as the return address of the original sender. The original sender's return address, however, is especially important on such envelopes since they are commonly utilized for bill collection and statement purposes, and without the return address the creditor does not know whether the bill reached the intended recipient, whether the recipient's

address was in error, or whether the recipient had moved.

**Brief Summary Text - BSTX (5):** Another object is to provide a send and return envelope of the above kind in which all printed, typed, or written information is on a single side of the envelope and which discloses the appropriate return address as well as directing address both during the original mailing and during the return mailing.

**Detailed Description Text - DETX (3):** In accordance with the present invention, the envelope has printed or typed addresses on only one side thereof when in the open position and is adapted to disclose appropriate return and directing addresses both during the original mailing and during the return mailing. To this end, the address of the original sender of the envelope is provided on the envelope at two locations, as indicated as 15, 16, and the address of the recipient is provided on the envelope at one location, as indicated at 18. In this case the recipient address 18 and one sender address 16 are located on the pocket portion 11 while the second sender address 15 is located on the flap portion 12. Adjacent the recipient address 18 and the sender address 15 is the word "From" for the purpose of indicating the source or origin of the mailing of the envelope, as will become apparent below. In the upper right hand corner of the pocket portion 11 in this case there is a printed rectangle 19 indicating the area where a stamp is to be placed for return mailing of the envelope.

**Detailed Description Text - DETX (6):** For the purpose of permitting the recipient to return the envelope to the sender with proper directing and return addresses disclosed on the envelope, the flap portion 12 includes a separable part 22 which may be removed from the envelope as shown in FIG. 3 to leave a smaller residual flap 24. In this case the flap part 22 is separable along the first fold line 20 and to facilitate such removal perforations are provided in the flap portion 12 on the fold line 20.

**Detailed Description Text - DETX (8):** In view of the foregoing, it can be seen that the send and return envelope of the present invention is economical to manufacture and simple to use both by the original sender and the recipient. When original sender has had the envelopes printed, the sender generally need only add the recipient's address at one place on the envelope. In the event that the sender's address is not printed on the envelope, the envelope may be placed in a typewriter in its open position and all necessary information may be typed at one time. For return of the envelope, the recipient has to do nothing more than remove the separable flap part 22 and seal the residual flap 24. The recipient need not supply his return address nor manipulate any cumbersome inserts.

**Claims Text - CLTX (8):** 3. The send and return envelope of claim 2 in which said first sender address placement area has legend indicating the source of origin of said envelope, said sender address placement area legend being disclosed through said flap opening when said flap portion is folded upon said pocket portion along said first fold line, and said sender address placement area legend being covered by said residual flap portion upon folding upon said pocket portion along said second fold line.

Current US Original Classification - CCOR (1): 229/304

US-PAT-NO: 5011069

DOCUMENT-IDENTIFIER: US 5011069 A

\*\*See image for Certificate of Correction\*\*

TITLE: Continuous mailer assembly

DATE-ISSUED: April 30, 1991

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bowen; Charles G.	La Grangeville	NY	N/A	N/A
Dolce; Anthony B.	Pleasant Valley	NY	N/A	N/A
US-CL-CURRENT:	229/69, <u>229/305</u>			

ABSTRACT: A mailer unit having front and back plies secured together on three sides to form an open-ended pocket, a removable insert ply within the pocket, a cover ply removably secured to the front ply and having an image transfer coating for imprinting a reply address on the front ply under the cover ply.

17 Claims, 10 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 4

----- KWIC -----

Brief Summary Text - BSTX (3): Generally, the mailer units have been constructed to provide not only an envelope for mailing information to an addressee but also a reusable reply envelope by means of which the addressee can return information, such as a check in payment for an invoice, to the original sender or another. However, in many cases, postal authorities have objected to the format in which the mailers are sent through the mails. Specifically, in many cases, the mailers have been provided with a reply address which can be readily confused with the address of the addressee. In some cases, this has resulted in the mailer being mailed to the reply address rather than the intended addressee because the reply address is read rather than the addressee address.

Brief Summary Text - BSTX (4): In order to avoid the above situation, it has been known to provide return mailer constructions with an extra ply of paper to form a cover ply which extends over a portion of the front face of the mailer to cover over approximately one half of the front face of the mailer unit. In such cases, the cover ply is provided with the address of the intended addressee while the covered over surface of the front ply is provided with a preprinted address for the reply envelope. In such cases, the mailer unit would not have both addressee and reply addresses which might be otherwise confusing to postal authorities

Brief Summary Text - BSTX (5): However, the use of a cover ply over the face of the mailer unit requires the reply address and/or postal indicia to be printed on the underlying ply in the area to be covered by the flap prior to assemblage of the mailer unit.

Brief Summary Text - BSTX (12): The mailer unit is such as to eliminate a misdirecting of mail by postal authorities. As constructed, a postal worker can see only the outgoing address on the

mailer unit so that the unit cannot be misdirected. Likewise, when the mailer unit is opened, the outgoing address (and the postal coding for the address) is eliminated and the mailer can only be directed to the reply address - the only remaining mailing address. The post office can now add coding to represent the new address.

**Brief Summary Text - BSTX (17):** One data-entry field may be a "postal indicia" field aligned with a respective carbon area for imprinting postal information onto the front of the underlying removable cover ply of a mailer unit. Likewise, an "outgoing address" field may be aligned with a respective carbon area for imprinting an outgoing address on the removable cover ply of the mailer unit while a "return address" field is aligned with a respective carbon area for imprinting a return address on the front ply or the mailer unit.

**Brief Summary Text - BSTX (18):** In addition, one data-entry field may include a "reply address" field aligned with a carbon area of the removable cover ply of the mailer unit for imprinting of a reply address on the front ply of a mailer unit through and under the removable cover ply.

**Detailed Description Text - DETX (21):** Of note, the fields 20, 22 of the overlying ply 10 may be aligned with the carbon area 54 on the back of the front ply 28 so as to transfer the outgoing address and the reply address onto other designated areas 53, of the insert ply 30. In this case, the insert ply 30 may be provided with a line of weakening 66 so that the insert 30 may be separated into two portions so that a return portion can be returned in the reusable envelope provided by the plies 28, 29. Likewise, the return address field 21 of the overlying ply 10 may be aligned with the carbon area 54 on the back of the front ply 28 to transfer the return address onto a designated area 67 (see FIG. 6) of the insert ply 30.

**Detailed Description Text - DETX (24):** Referring to FIG. 3 and 4, when a mailer unit 11 is placed in the mails, only one mailing address is provided. Thus, there is no risk that the mailer unit 11 would be mailed to the reply address.

**Detailed Description Text - DETX (28):** As illustrated in FIG. 7, the front face of the reply mailer has two address areas 35, 36, one of which may be a return address for mailing purposes while the other is a reply address to which information, such as a check, is to be sent. In some cases, the address areas 35, 36 may have the same address.

Current US Cross Reference Classification - CCXR (1): 229/305

US-PAT-NO: 5039000

DOCUMENT-IDENTIFIER: US 5039000 A

TITLE: Mailer with tear strip on outgoing and return envelopes

DATE-ISSUED: August 13, 1991

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
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Ashby; Robert E.	Quakertown	PA	N/A	N/A
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US-CL-CURRENT: 229/304, 229/305, 229/69

ABSTRACT: A mailer type business form is provided which includes an outgoing envelope formed by a first sheet folded along a fold line to provide first and second panels each having three marginal edge portions, and a return envelope formed by a second sheet overlying the second panel and adhesively secured to the second panel inwardly adjacent the three marginal edge portions such that the second panel forms a rear panel of both the outgoing envelope and the return envelope. A removable tear strip is incorporated in the second panel and is defined by a slit formed in the second panel parallel to and adjacent one of the marginal edge portions, and a pair of parallel lines of perforations extending perpendicularly from opposite ends of the slit toward the fold line.

20 Claims, 8 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 5

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Brief Summary Text - BSTX (4): According to one aspect of the present invention, a method of continuously constructing mailer type business forms is provided. The method comprises the steps of: (a) Providing first and second sheets of an outgoing envelope, each sheet having first, second, third and fourth edges. (b) Providing first and second sheets for a return envelope, each having first, second, third and fourth edges. (c) Forming a slit in the first sheet parallel to the second edge thereof, and intersecting the first edge thereof, and a perforation adjacent and parallel to the first edge, and intersecting the slit, in each of the outgoing and return envelopes, to provide an easy opening tear strip. (d) Applying adhesive connecting the first and second sheets of the outgoing envelope together at edges thereof, to form an outgoing envelope. And, (e) applying adhesive connecting the first and second sheets of the return envelope together at three edges thereof, leaving one open edge to allow access to the interior of the return envelope. Typically step (c) is practiced by providing the perforation of the tear strip perpendicular to the open edge of the return envelope, and in the bottom sheet of the return envelope, address information being provided on the top sheet of the return envelope. Also the bottom sheet of the return envelope typically is wider than the top sheet of the return envelope, overlapping at the fourth edge thereof, and having adhesive applied to the overlapping portion so that it can be bent back over and adhesively secured to the top sheet of the return envelope.

Current US Original Classification - CCOR (1): 229/304

Current US Cross Reference Classification - CCXR (1): 229/305

US-PAT-NO: 5248082

DOCUMENT-IDENTIFIER: US 5248082 A

TITLE: Two-way mailer with pull tab

DATE-ISSUED: September 28, 1993

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Elmlinger; Gene L.	West Chester	OH	N/A	N/A
US-CL-CURRENT:	229/303, 229/305, 229/306			

ABSTRACT: A two-way mailer is constructed of top and bottom plies which form an outgoing and a return envelope, at least one insert ply secured between the top and bottom plies and a control ply overlying the top ply. The top ply bears the MAIL TO and the RETURN addresses for the outgoing envelope. The top ply also includes a die-cut removable pull tab. The insert ply includes a stationary portion adhered to the top ply around the outer perimeter of the pull tab. A section of the stationary portion located behind the pull tab bears the MAIL TO address for the return envelope. Removing the pull tab exposes the section and the MAIL TO address for the return envelope. With as few as three total plies, this two-way mailer can be consistently printed on an impact printer without any paper jams. Because the MAIL TO address for the return envelope remains concealed beneath the die-cut pull tab in the top ply, this mailer reduces user and postal confusion commonly caused by two separate MAIL TO addresses for the outgoing and return envelopes.

16 Claims, 8 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 3

----- KWIC -----

Abstract Text - ABTX (1): A two-way mailer is constructed of top and bottom plies which form an outgoing and a return envelope, at least one insert ply secured between the top and bottom plies and a control ply overlying the top ply. The top ply bears the MAIL TO and the RETURN addresses for the outgoing envelope. The top ply also includes a die-cut removable pull tab. The insert ply includes a stationary portion adhered to the top ply around the outer perimeter of the pull tab. A section of the stationary portion located behind the pull tab bears the MAIL TO address for the return envelope. Removing the pull tab exposes the section and the MAIL TO address for the return envelope. With as few as three total plies, this two-way mailer can be consistently printed on an impact printer without any paper jams. Because the MAIL TO address for the return envelope remains concealed beneath the die-cut pull tab in the top ply, this mailer reduces user and postal confusion commonly caused by two separate MAIL TO addresses for the outgoing and return envelopes.

Brief Summary Text - BSTX (6): This "reusable" mailer was normally constructed in two different versions. The first version typically contained both the outgoing MAIL TO or MAIL TO name and address and the RETURN name and address on the front of the envelope. The second version typically had the outgoing MAIL TO name and address on the front of the envelope and the

RETURN name and address on the back of the envelope. In both versions, the RETURN address would appear in a position that could be mistaken for the MAIL TO address, thus resulting in the misdirection of the mailer.

Brief Summary Text - BSTX (12): This invention achieves the above-stated objectives with a three ply mailer which includes two outer plies which serve as an outgoing/return envelope and a single ply insert. A pull tab in a top ply of the envelope is removable by the recipient to expose a section of the insert ply which bears a MAIL TO address for the return envelope.

Brief Summary Text - BSTX (13): The top ply bears the MAIL TO and RETURN address for the outgoing envelope. When received, removal of an opening tear strip from the top ply opens the outgoing envelope and exposes a flap from the bottom ply which is foldable over the top ply to seal the return envelope. Folding and sealing of the flap covers up the original MAIL TO address for the outgoing envelope. Removal of the pull tab from the top ply exposes the new MAIL TO address for the return envelope. Thus, in both the outgoing and the return modes of the envelope, only one MAIL TO address is viewable on the top ply, thus conforming to current postal regulations.

Brief Summary Text - BSTX (17): This two-way mailer may consist of as few as three plies. Including the control ply, this mailer includes four total plies. Thus, this mailer may be impact printed without jamming small printers. Because the MAIL TO address for the return envelope is hidden behind the pull tab of the top ply, this invention eliminates the confusion caused by two MAIL TO addresses on the outer surface of a two-way mailer. Perhaps, more importantly, the two-way mailer of this invention complies with all current U.S. and Canadian postal regulations.

Brief Summary Text - BSTX (25): According to one embodiment, the insert plies may be preprinted while in the initial web form, prior to die-cutting. The preprinted material on the insert ply includes the outgoing message, a location indication for the reply message and the MAIL TO address for the return envelope.

Brief Summary Text - BSTX (26): Preferably, an interior surface of the top ply includes transfer coating (i.e. carbonless paper coating, carbon tissue, opas, hot spot carbon, etc.) in regions which overly the outgoing message area, the reply message area and the MAIL TO address area for the return envelope. According to this embodiment of the invention, all of the printed matter for the mailer is impact printed in a single pass through the printer.

Brief Summary Text - BSTX (27): In use, after removal of the feed strips, the original sender removes the control ply from the mailer and retains it for record keeping. The outgoing envelope is then mailed. The top ply of the outgoing envelope includes the impact-printed MAIL TO and RETURN addresses.

Brief Summary Text - BSTX (28): Upon receipt, the recipient removes the opening tear strip from the top ply and tears the removable portion of the insert ply from the stationary portion by pulling on the free edge of the insert. The recipient may then read the outgoing message printed upon the

removable portion. A reply section may be severable from the outgoing message section along the line of weakening, or additional inserts may serve as reply parts. The recipient fills out the reply information area and inserts it back between the top and bottom plies. An adhesive line along the flap of the bottom ply is then activated and the flap is folded over the first perforation line of the top ply to seal the return envelope. When sealed, the flap covers the MAIL TO address of the original, outgoing envelope. The pull tab is then torn from the top ply along the die-cuts or perforations, thereby exposing the MAIL TO address for the return envelope printed upon the stationary insert or stationary portion of an insert ply. Thus, both as an outgoing and a return envelope, this mailer reveals only one MAIL TO address at a time.

**Detailed Description Text - DETX (6):** This line of weakening 31 extends parallel with second side marginal edge 21 of the mailer 10. The line of weakening 31 then extends parallel with bottom marginal edge 24 to a position across the width of the mailer 10. Finally, the line of weakening 31 extends downward again to bottom edge of the insert 14. The configuration of line of weakening 31 defines the shape of the stationary portion 17 of the insert ply 14. In the embodiment second side marginal edge 21. Reference numeral 32 designates the areas of insert ply 14 to which glue is applied to adhere to top ply 13. The section 33 is exposed when the pull tab 34 is removed from top ply 13 along the die-cuts 35. The section 33 bears the MAIL TO address for the return envelope.

**Detailed Description Text - DETX (9):** The top surface of control ply 12 may be blank or may provide a mapped layout with a plurality of regions 60-66 which indicate the relative locations of all the printed information on the various plies of the mailer 10. Region 60 designates the corresponding location of top ply 13 where the RETURN address for the outgoing envelope is printed. Region 61 designates the location of the corresponding region on top ply 13 where an account number is printed. Region 62 designates the corresponding region on top ply 13 where postal indica may be printed. Region 63 indicates the area for the reply message. Region 64 indicates an area for the outgoing message. Region 65 indicates the corresponding position on the insert ply 14 for the MAIL TO address of the return envelope. Region 66 indicates the relative position on top ply 13 for the MAIL TO address of the outgoing envelope.

**Detailed Description Text - DETX (14):** This places the mailer 10 in condition for use as an outgoing envelope, as shown in FIG. 3. This outgoing envelope includes top ply 13, insert ply 14 and bottom ply 15. The outgoing envelope may include printed information in regions 60a, 61a, 62a and 66a which correspond to regions 60, 61, 62 and 66, respectively, of control ply 12. Region 60a bears the RETURN address for the outgoing envelope. Region 61a bears an account number. Region 62a bears postal indica for mailing the outgoing envelope to the initial recipient. Region 66a bears the MAIL TO address for the outgoing envelope. FIG. 3 also shows the die-cuts 35 which define pull tab 34. Preferably, pull tab 34 bears some printed information which indicates that it should be removed by the recipient prior to mailing the return envelope. If desired, top ply 13 may also include a reference arrow 72 or some other indication, such as the word "to", to call to the attention of the postal service the destination of the outgoing envelope. Finally, tear strip 55 of the top ply 13 should include a printed region 74 which includes instructions and/or illustrations which show how to remove the tear strip 55.

Detailed Description Text - DETX (16): FIG. 5 shows reply message section 39 severed from outgoing message section 38. With the reply printed in region 63b, the reply message section 39 may be inserted in between the top ply 13 and the bottom ply 15, as shown in FIG. 6. The resealable glue line 46 on flap 50 is folded over top ply 13 along perforation line 51 to seal the return envelope. Adhering flap 50 to top ply 13 covers the remainder of region 66a which bore the outgoing MAIL TO address and region 62a which bore the postal indica. Thereafter, pull tab 34 is torn along die-cuts 35 to expose the MAIL TO address for the return envelope printed upon section 33 of the insert ply 14.

Detailed Description Text - DETX (17): As shown in FIG. 7, the mailer 10 has been transformed into a return envelope ready to be mailed by the recipient back to the original mailer. The return envelope bears the MAIL TO address in exposed section 33 of the insert ply 14. The return envelope also bears the original RETURN address in region 60a and account number in region 61a. When folded over as a return envelope, perforation line 51 of bottom ply 15 becomes the outer side edge of the return envelope. The prior, first side marginal edge 20 of bottom ply 15 now extends parallel to the new edge 51, but is spaced inwardly therefrom. Preferably, a region 78 of the bottom ply 15 bears indica which indicates to the original recipient that postage must be placed on the return envelope prior to mailing.

Detailed Description Text - DETX (18): Thus, this four-ply return mailer eliminates confusion associated with two MAIL TO addresses for a two-way mailer. In the outgoing mode, the outgoing MAIL TO address is printed on region 66a of top ply 13. During the return mode, the outgoing MAIL TO address in region 66a is obscured by the folded flap 50 which seals the return envelope. On the other hand, section 33 of insert ply 14, which bears the MAIL TO address for the return envelope, is concealed behind pull tab 34 when the outgoing envelope is sent. However, this section 33 is exposed to display the MAIL TO address for the return envelope when the pull tab 34 is removed. Thus, when the mailer 10 is used as an outgoing and as a return envelope, only one MAIL TO address appears on the top ply 13.

Claims Text - CLTX (3): at least one insert ply located between the other plies, the insert ply including a stationary portion adhered to said one ply around the outside of the perimeter of the pull tab and a removable portion separable from the stationary portion along a line of weakening, the stationary portion including an exposed section which is viewable through said one ply when the pull tab is removed therefrom, the exposed section bearing a MAIL TO address for the return envelope.

Claims Text - CLTX (6): 4. The mailer of claim 1 wherein a first of said outer plies bears a MAIL TO address and a RETURN address for the outgoing envelope said first ply further includes a tear strip separable from said outer plies along a first perforation line to open the outgoing envelope and to provide access to the insert ply, a flap of the second of the pair of outer plies adapted to fold over the first perforation line to seal the return envelope and also to cover the MAIL TO address for the outgoing envelope.

Claims Text - CLTX (9): a control ply overlying the first ply, the control ply including selectively

activatable printing means thereon in surface contact with the first ply for printing the MAIL TO and RETURN addresses for the outgoing envelope on the first ply when the mailer is fed through an impact printer.

Claims Text - CLTX (10): 7. The mailer of claim 6 wherein the exposed section of the insert ply bears a preprinted MAIL TO address for the return envelope.

Claims Text - CLTX (11): 8. The mailer of claim 6 wherein an interior surface of the removable pull tab includes activatable printing means thereon in surface contact with the exposed section of the insert ply for printing the MAIL TO address for the return envelope on the exposed section of the insert ply when the mailer is fed through an impact printer.

Claims Text - CLTX (14): a second ply adhered to the first ply to form an outgoing envelope, the second ply having a body and a flap located along the first side marginal edge, the body and flap being separated by a second perforation line which is parallel with the first perforation line, the first ply bearing MAIL TO and RETURN mailing addresses for the outgoing envelope;

Claims Text - CLTX (15): the opening tear strip being removable from the first ply along the first perforation line to open the outgoing envelope, the flap having activatable adhesive thereon adapted to adhere to the first ply when folded thereover about the first perforation line to cover the outgoing MAIL TO address and to seal the return envelope; and

Claims Text - CLTX (16): an insert ply located between the first and second plies, the insert ply having at least one line of weakening, the line of weakening defining a stationary portion that is adhered between the first and second plies around the outside of the perimeter of the pull tab and a removable portion that is separable from the stationary portion along the line of weakening when the outgoing envelope is opened, the stationary portion having a section which is viewable through the first play when the pull tab is removed and which bear a MAIL TO address for the return envelope.

Claims Text - CLTX (28): activatable printing means located on an inside surface of said pull tab, thereby to print a MAIL TO address for a return envelope upon said unadhered section when the mailer is run through an impact printer.

Current US Cross Reference Classification - CCXR (1): 229/305

US-PAT-NO: 5346123

DOCUMENT-IDENTIFIER: US 5346123 A

TITLE: Mailer type business form and intermediate with built in reply envelope

DATE-ISSUED: September 13, 1994

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
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Lombardo; Leo	Manchester	NH	N/A	N/A
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US-CL-CURRENT: 229/305, 229/69, 229/92.1

ABSTRACT: A mailer type business form, and intermediate, are constructed from a single sheet of paper having four virtually identically sized panels, the sheet folded about an intermediate fold line, and then two other fold lines, to form a four ply mailer. First and fourth panels of the intermediate define the third and fourth plies of the mailer, and provide a return envelope sealed along three edges and open at the fourth, with a flap provided with a rewettable adhesive strip at the open edge. The second and third panels are held together by longitudinal strips of adhesive adjacent the longitudinal edges of those panels, with perforations provided in the second and third panels (but not the first and fourth panels) to allow removal of the connecting adhesive. The fold lines connecting the first and second panels and third and fourth panels are preferably perforations, and a longitudinal perforation is provided in the second panel to form the statement and reminder portions. All variable printing on the intermediate is provided on the second face of the sheet (which includes the outgoing address in the third panel, and the reply address in the first panel) so that the mailer may be constructed by simplex imaging.

21 Claims, 7 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 4

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Abstract Text - ABTX (1): A mailer type business form, and intermediate, are constructed from a single sheet of paper having four virtually identically sized panels, the sheet folded about an intermediate fold line, and then two other fold lines, to form a four ply mailer. First and fourth panels of the intermediate define the third and fourth plies of the mailer, and provide a return envelope sealed along three edges and open at the fourth, with a flap provided with a rewettable adhesive strip at the open edge. The second and third panels are held together by longitudinal strips of adhesive adjacent the longitudinal edges of those panels, with perforations provided in the second and third panels (but not the first and fourth panels) to allow removal of the connecting adhesive. The fold lines connecting the first and second panels and third and fourth panels are preferably perforations, and a longitudinal perforation is provided in the second panel to form the statement and reminder portions. All variable printing on the intermediate is provided on the second face of the sheet (which includes the outgoing address in the third panel, and the reply address in the first panel) so that the mailer may be constructed by simplex imaging.

Brief Summary Text - BSTX (5): The fifth machine activated adhesive patterns are preferably disposed on one or both of the reply envelope flap portion, and the second panel second face

adjacent the second fold line, and reply address indicia is imaged on the second face of the first panel. Outgoing address indicia is imaged on the second face of the third panel, and the second faces of the panels are devoid of adhesive along or parallel to the longitudinal edges thereof. Also the first and third lines typically are lines of weakness (such as perforations).

**Brief Summary Text - BSTX (8):** The invention also comprises a multi-ply mailer with built in return envelope. The mailer comprises the following elements: First, second, third, and fourth plies of virtually identical dimensions, each having first and second faces, longitudinal edges, and end edges. The first ply having outgoing address indicia imaged on the first face thereof, the first face being an exterior face of the mailer. First and second adhesive patterns for connecting the second face of the first ply to the face of the second ply together in margin portions adjacent the longitudinal edges of the first and second plies. First and second longitudinal lines of weakness disposed on the opposite side of the first and second adhesive patterns from the longitudinal edges for allowing detachment of the first and second plies adjacent the longitudinal edges. The first face of the third ply having reply address indicia imaged thereon. A third adhesive pattern disposed between the second face of the third ply and the first face of the fourth ply for connecting the third and fourth plies together along three edges thereof to form a reply envelope. The third and fourth plies being devoid of longitudinal lines of weakness. And, a fourth adhesive pattern disposed between the second face of the second ply and the first face of the third ply along at least one end edge thereof, but not along the longitudinal edges thereof, the fourth adhesive pattern comprising widely spaced shapes of adhesive for tacking the second and third plies together to provide readily releasable attachment therebetween, the second ply second face and the third ply first face being devoid longitudinal adhesive patterns.

**Detailed Description Text - DETX (14):** Once the mailer 13 is received by the outgoing addressee, the recipient opens the mailer 13 according to the indicia 58, by sticking his or her finger (shown at 62 in FIG. 6) between the first and second panels 24, 25 along either the side edges 15, 16, where there is no adhesive. Then by moving the finger 62 toward the opposite edge (edge 15 in FIG. 6) and downwardly in FIG. 5, the widely spaced adhesive portions 48, 48' holding the "edges" 17, 22 together provides the first stage of opening. Then second and third panels 25, 26 are separated from the first and fourth panels 24, 27 by tearing along the perforation lines 21, 23 (see FIG. 7), and the margin portions 36, 37 are removed by tearing along perforation lines 34, 35, resulting in separation of the second and third panels 25, 26 from each other. Tearing also takes place along the perforation line 50 to separate the second panel 25 into the statement portion 51 and remittance portion 52. Stub 40 is also removed by tearing along perforation 41, detachment by the adhesive portions 47, 47' readily taking place. The recipient then inserts the remittance portion 52 and his or her check into the reply envelope 33, bends the flap 44 about the fold line 43 and wets the rewettable adhesive strip 45, seals the reply envelope 33, and then mails it to the reply address 54.

Current US Original Classification - CCOR (1): 229/305

US-PAT-NO: 5598970

DOCUMENT-IDENTIFIER: US 5598970 A

TITLE: Business form or mailer intermediate

DATE-ISSUED: February 4, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
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US-CL-CURRENT: 229/305, 229/300, 229/314

ABSTRACT: A mailer or business form intermediate including a built-in reply envelope. The mailer comprises a single substrate sheet divided into four panels. At least three of the four panels are of substantially the same longitudinal dimension. The reply envelope is fashioned from the second and third panels upon folding. A closure flap for the reply envelope is also included. The mailer also contains provisions for including a number of partitions for labels or statements, a two-ply card, or a window for addresses.

12 Claims, 13 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 12

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Brief Summary Text - BSTX (4): Lombardo, U.S. Pat. No. 5,346,123 discloses a mailer type business form and intermediate with a built-in reply envelope. The mailer of Lombardo is a sheet of four virtually identically sized panels which may be folded to form a four ply mailer. A return envelope is created from the first and fourth panels when the mailer is folded. The return envelope is open along the fourth panel with a sealing flap adjacent the outer edge of the fourth panel. Perforations are provided only in the second and third panels, not the first and fourth panels. Also, the Lombardo mailer does not provide return address labels or multiple invoice or billing statements and is simplex printed.

Drawing Description Text - DRTX (8): FIG. 6 is a plan view of the front (first) side of one embodiment of the mailer or business form intermediate of the present invention containing a return address window.

Detailed Description Text - DETX (2): The present invention relates to a mailer or business form intermediate which contains a built-in reply envelope. The mailer contains four panels suitable for simplex or duplex printing of variable or non-variable information such as preprinted return addresses, billing statements, or a two-ply card. The printing may be accomplished with the various automated printers common today including impact, laser, thermal transfer and ink jet printers. The mailer can facilitate the return of mail solicitations by providing a pre-addressed, postage-paid return envelope or pre-printed return address labels. Further, the mailer is available in a continuous series in a folded pack or in single cut sheets.

Detailed Description Text - DETX (11): The mailer 10 of the present invention includes space for the printing of various information, both variable and non-variable, if so desired. By variable information, it is meant information which varies from mailer to mailer such as addressee information. By nonvariable information, it is meant information which remains the same from mailer to mailer. For instance, a return address may be included on either the second panel 28 or the third panel 30 of the return envelope. Further, an outgoing address may be included on either the first or fourth panels, 26 and 32, respectively. Pre-paid postage may be included on any of the panels for both the outgoing and return addresses.

Current US Original Classification - CCOR (1): 229/305

US-PAT-NO: 6409592

DOCUMENT-IDENTIFIER: US 6409592 B1

TITLE: White ink security feature for mailer type business forms

DATE-ISSUED: June 25, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
McCoy; Deborah L.	Lewiston	NY	N/A	N/A
Wagner; David G.	Amherst	NY	N/A	N/A

US-CL-CURRENT: 462/6, 229/306, 229/69, 283/116, 283/902, 462/64, 462/900

ABSTRACT: A business form, particularly a mailer type business form, is constructed from a sheet of paper. The paper has first and second areas, the first area having security indicia positively imaged in non-fluorescent white ink. The second area, which is preferably immediately adjacent the first area, is substantially covered by non-fluorescent white ink, with security indicia reverse imaged on it. Some security indicia may extend from the first area to the second area, being positively imaged white ink in the first area, and reverse imaged indicia surrounded by white ink in the second area. The mailer may be formed into panels by lines of weakness, and may have areas with security pantographs thereon, or areas with security printing over a portion thereof and portions distinct from the security printing receiving outgoing address indicia and postage indicia, and possibly return address indicia.

20 Claims, 4 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 4

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Brief Summary Text - BSTX (6): The business form may be a mailer type business form, and may include a third area. The third area may have a security pantograph (or camouflage printing) thereon. A fourth area may also have security printing over a portion thereof, and portions distinct from the security printing receiving outgoing address indicia and postage indicia (and perhaps return address indicia) of the mailer.

Current US Cross Reference Classification - CCXR (3): 283/116

US-PAT-NO: 3133752

DOCUMENT-IDENTIFIER: US 3133752 A

TITLE: Convertible billing and reply envelope

----- KWIC -----

OCR Scanned Text - LPAR (4): United States Patent Office 3@ 133,752 3,133,752

CON'VE,P.TIBLE BILLING AND REPLY ENVELOPE

David T. Schumacher, 1612 Strand, Hermosa Beach, Calif.

Filed June 26, 1963,

Ser. No. 290,796

7 Claims.

(Cl. 282-1-5)

This invention relates to a billir@g envelope which is convertible by the recipient into a reply envelope for use in mailing back a check to the sender. A principal object of the invention is to provide such a convertible billing and reply envelope which is an improvement upon the envelope disclosed in my copending application Serial No. 137,855 filed September 13, 1961, for U.S. Letters Patent upon a "Convertible Billing Envel.ope Wilh Carbons for Preparing Statement and Customer's Address in DuplicaLe," now Patent 3,111,336 issl,ed November 19, 1963. T'ne customer's address in duplicate was required in my prior invention aforesaid in order to provide this address wh,-re it is visible from outside the envelope as prepared at the point of origin for mailing to the custorier, Nvhile at the same time incorporatin.a the cus@omer's address at tl-ie point of origin with that poition of the original envelope wliich is to be cor@verled into a reply envelope, in order that the biller, on rece-1ving back the reply envelope, may credit this particular customier with any payment enclosed in @he reply envelop--. It is an object of the present iinvention to provide a convertible billing and reply envelope in which the functions performed in said prior invention by preparing the customer's address in duplice-,e are both performed without the necessity of preparing said address in duplicate, there,I,y eliminating the carbon required iii said prior invention for p.-eparing said address in duplicate. Typing the statement and clustomer's address when ori.-inaliy preparin.- the envelope of my prior invent@on required two separate introductions of the envelope into the typewriter, one to type the statement, and the other, to type the custo,@mer's address. Another object o-L' the i)resent invention is to provide a convertible billing ar@a reply envelop-- wherein the s',atement and cuostomer's address are both typed during a s@n.-le insertion of the envelope into the typewriter, thus reduc:n@ the time and labor required to prepare the envelope for its original mailing. While it is thus an object of the present invention to elimina'e one of the carbons required in my ai'oresaid prior inveiition without loss of any of its essential functions so , that the envelope of my present invention per-'Loril@is subs'Lantiatly the same functions as said prior invention and at a lower cost, it is a further object of the present inven,tion to provide a convertible billing and reply envelope perfoiming the same functions as aforesaid witholit req.,,i;ring any carbon paper whatever. Still another object of the pres--nt invention is to provide a convertible billing and reply envelope wherein the statement and custor@ier's address are boih typed during a single insertion of the envelope into the typewriter Avhile at the same time maicing a file copy for the original sender of said statemenl and- address.

A yet further object of the present invention is to provide such a convertible billing and reply envelope as lastly aforementioned without requiring any carbon paper -whatever. Patented May 19, 1964 2 The elimination of carbon paper in the present invention is accomplished by manufacturing said envelope of a sheet of paper one surface of which has been coated by an acid clay-like material and the other surface of which has been coated with microscopic capsules carrying a colorless color reactant which turns to a colored form on contact with said acid clay-like material. For a full disclosure of the aforesaid coatings reference is made to U.S. Patents Nos. 2,641,557, 2,712,507 and 2,730,456. 10 The principle by which said coatings operate is illustrated when a paper surface coated with the capsules is placed in contact with a paper surface coated with acid clay-like material and then pressure is applied to the overlying sheet of paper as by writing or typing on said sheet, 15 so as to rupture said capsules and release the liquid contained therein which thereupon contact the acid clay-like material on the underlying sheet which turns said liquid to colored form and produces the equivalent of a carbon copy on the sheet coated with acid clay-like material of whatever was written or typed on the overlying sheet of paper. Another object of the present invention is to provide a convertible envelope as aforesaid which is made of doublecoated paper embodying the above noted copying principle which will produce a copy of the message written on 25 said envelope at the same time the latter is inserted in a typewriter to type the address thereon, and wherein said envelope provides means for refolding it the same after it is taken from the typewriter which will prepare the envelope for its initial mailing, said folding being only 30 like coated surfaces into contact thereby preventing pressure applied to the outside of the envelope -during its initial mailing -from producing marks on the interior thereof. An additional object of the invention is in the folding of said sheet of double-coated paper when the latter is 35 used in making said envelope so that like-coated surfaces are juxtaposed within the pocket of the envelope for receiving enclosures such as checks and money which may be placed therein for transmittal to the original sender when said envelope is reconstituted and mailed back to 40 him, whereby the enclosures will not be subject to being inadvertently marked during said second mailing. The manner of accomplishing the foregoing objects as well as further objects and advantages will be made manifest in the following description taken in connection with 45 the accompanying drawings in which

FIG. 1 is a diagrammatic plan view of a preferred embodiment of the envelope of the invention, as manufactured, with the pocket of the envelope placed downwardly against the desk and the primary flap unfolded 50 along its transverse middle fold therein so that the primary and secondary flaps of the envelope and the narrow joined tertiary flap thereof are extended full length from said pocket.

FIG. 2 is a bottom plan view of the envelope shown in FIG. 1.

FIG. 3 is a plan view of said envelope with the outer half of the primary flap and the secondary flap and tertiary flap swung upwardly about the transverse middle fold 60 in the primary flap so as to lower the secondary flap into true overlapping relation with the upper wall of said envelope pocket.

FIG. 4 is a fragmentary enlarged sectional view taken on the line 4-4 of FIG. 1.

OCR Scanned Text - LPAR (6): line of perforations as shown in FIG. 9. The secondary flap thus torn off of the envelope and the statement transmitted thereon is retained by the addressee as a

part of his records of the billing, and his check in payment of the bill is slipped inside the envelope pocket 36, the strip 5 of adhesive 37 is moistened, the primary flap is swung about the line of crease 24 into overlying relation with the front pocket wall 26 and pressed down onto the moistened adhesive 37 so as to seal the primary flap in closing relation with the pocket 36. A stamp is now 10 applied to the rectangle for locating its position on the outer surface of the back pocket wall 27 and the envelope has been completely converted to a reply envelope and is ready for remailing to the first sender of the envelope whose address is printed on the outer face of said back 15 pocket wall. When the converted envelope 20 is received back by its first sender, i.e. may separate the primary flap with a letter opener along the line of the crease 39 formed therein so as to unseal the envelope and remove the contents 20 of the envelope pocket 36. When he does this, he is able to identify the enclosures with the person sending the same because the name and address of the original addressee appears on the outer surface of the front pocket wall 27 as shown in FIG. 9 together with the details of 25 the statement sent to said addressee in said envelope as it was originally mailed. The original sender of the envelope is thus able to correctly credit the specific addressee involved in this transaction for any payments made by him in the record of the envelope 20. From the foregoing description, it is readily seen that the envelope 20 of the present invention possesses significant advantages over the convertible envelope shown in my copending application above referred to, in that only a single patch of carbon paper 33 is required in envelope 20 and, in that only a single insert is required in a typewriter in preparing the envelope 20 for its initial mailing. Reference is now made to FIGS. 13, 14, 15 and 16 which illustrate a modified form of envelope 50 of the present invention which is exactly like the convertible envelope 20 in general mode of operation excepting for certain differences which will now be pointed out. Envelope 50 performs all the functions of envelope 20 but does not require the use of any carbon paper whatsoever. This is accomplished by making the envelope 50 of a sheet of paper 51 having its inner face coated with a coating 52 containing microscopic capsules present in such number that they are in substantial contact with said capsules 52 being relatively fragile and confining therein a water-immiscible oil vehicle in which is carried a colorless color reactant which turns to a colored form on contact with an acid clay-like material. The outer face of sheet of paper 51 is provided with 55 a coating 53 which embodies acid clay-like material. Thus when a section of sheet 51 is placed against another section of said sheet so that the coating 52 on the first section of said sheet engages the coating 53 on the second section of said sheet, and pressure is applied to the superimposed section of said sheet such as by writing or typing thereon, the capsules in coating 52 are ruptured allowing the oil vehicle within said capsules to escape so that the colored reactant carried thereby contacts the acid clay-like material in coating 53 and produces a color in the areas subjected to such writing or typing so as to produce a copy in the coating 53 of the writing or typing above referred to. For specific examples of the materials thus briefly described as being included in coatings 52 and 53 of the sheet of paper 51, reference is made to the U.S. patents referred to hereinabove. When referring to features of the convertible envelope 50 which are identical with like features on the convertible envelope 20, corresponding reference numerals will be employed as were used in describing the latter, with 75 primary attached. Convertible envelope 50 is prepared for its initial mailing and then converted for its second mailing in identically the same way as already described for a convertible envelope 20 with the exception of the fact that envelope 50 has no carbon paper associated therewith so that it is unnecessary

to remove and dispose of carbon paper as is the case in handling the envelope 20. It is further desired to call attention to the fact that the envelope 50 possesses a distinct advantage in that while use is made of this double-coated paper to furnish the equivalent of a carbon copy on the outer face of front pocket wall 26' when preparing the envelope for its initial mailing, the completion of this preparation which results in the variolous parts of the envelope being positioned as shown in FIG. 8, results in practically all portions of the coating 52 on a sheet of paper 51 being in face-to-face contact with other portions of the same coating or they are exposed outwardly where they cannot come in contact with any portion of the coating 53 on said sheet of paper and thus permit any of the hidden surfaces on the sheet of paper 51 being inadvertently marked upon by the application of pressure to the exterior of the envelope during its initial mailing. There is one unimportant exception to the statement above made where the tertiary adhesive flap 30' overlies a narrow marginal area of the outwardly exposed face of primary flap 28'. Any inadvertent marking which is thus applied to this marginal portion of the blank through the outwardly exposed face of primary flap 28' will be seen to be of relatively no consequence. When the envelope 50 is converted for its second mailing, the inner face of the primary flap 28' covered by coating 52 is applied to the outwardly exposed face of front pocket wall 26' which is covered by coating 53 so that on the return mailing of the envelope there is a possibility of marks being inadvertently made through the primary flap 23' onto the front pocket wall 26' which carries the address of the addressee and the copy of the specific details of the bill rendered by this envelope. In the ordinary handling of mail, there is little likelihood that the outer face of front wall 26' would be subjected to sufficient inadvertent markings from this cause as to render the information carried on this surface illegible. Checks, money and the like enclosed within the envelope pocket 36' of envelope 50 are free from being inadvertently marked by juxtaposition of the coatings 52 and 53 adjacent said enclosures because the inner faces of both said front and back pocket walls 26' and 27' are covered by the coating 52. The present invention also makes provision for the preparation of a file copy for the original sender of either of envelopes 20 or 50 at the time said envelope is inserted into the typewriter to prepare this for its initial mailing. FIGS. 15 and 16 illustrate the manner of doing this for envelope 50. An insert sheet 54 of the same kind of coated paper as sheet 51 and of a proper size to be inserted into the envelope 50 as shown in FIG. 15 is provided as a part of envelope 50 wherever this service is required. Thus envelopes 50 are manufactured with the insert sheets 54 inserted therein as shown in FIG. 15 and each envelope 50 when taken out of its package has such an insert sheet already inserted in place therein for use in preparing the envelope and a separate file copy thereof for the original sender with one insertion of the envelope into a typewriter. The upward turned surface of sheet 54 as seen in FIGS. 15 and 16 is covered by coating 53 and the downturned face of insert sheet 54 is covered by coating 52. Thus when the envelope 50, embodying the insert sheet 54, is inserted in a typewriter and the address of the addressee is typed on the upwardly exposed face of insert sheet 54 where this is visible through hole 41', the impact of this typing on sheet 54 is transmitted through the coating 52 on the lower face thereof to the coating 53 on the outer face of front pocket wall 26' of said envelope thereby printing a true copy of said address on said front.

OCR Scanned Text - LPAR (7): 7 pocket wall. When, in the same insertion in the typewriter, the details of the statement are typed in the statement form 42' provided on the outwardly exposed face of secondary flap 19' a @hbn in FIG. 15, the coating 52 on the lower surface of this flap,

receives the impact of said typing and this transmits to the coating 53 on the inwardly exposed surface of the insert sheet 54 a true copy of said statement details. In like manner the impact of this typing is transmitted through insert sheet 54 to the coating 52 provided on the lower surface thereof which is thus caused to transmit to the coating 53 on the outwardly exposed face of front pocket wall 28 a second copy of said statement details. It is thus seen that there is no general change in the mode of operation of typing all the data necessary on convertible envelope 50 in a single insertion of the latter into a typewriter and preparing this envelope for its initial mailing and at the same time providing a file copy of the data so typed for preservation in the files of the original sender of the envelope. The insert sheet 54 after the envelope 50 has thus been typed up ready slips 'Lron-I the balance of the envelope aid is placed in the original sender's files while the folding of the envelope is completed in the same manner as aforescribed for envelope 20 to complete this envelope for its initial mailing. Alternative forms of accessory record sheets for use with either of the envelopes 20 or 50 of the invention are illustrated in FIG. 17. These modifications include an overlay sheet 55 which is shown in superimposed relation with a convertible envelope 20, the sheet 55 being of the same size as insert sheet 54 and made of ordinary paper and being provided with a patch of carbon paper centered which is lightly attached by spots of adhesive to the lower face of sheet 55 with the carbon face thereof turned downwardly, said patch being of sufficient size as to cover both the area of hole 41 as well as the statement form 42 on the envelope 20. When the overlay sheet 55 is employed in association with a convertible envelope 20, it is laid directly on top of the latter and this sheet is provided with a printed outline 57 of hole 41 and an outline 53 of statement form 42 so that these outlines are directly superimposed over said hole and statement form when the sheet 55 overlies the envelope 20. When the sheet 55 and envelope 20 are thus assembled, they are inserted into the typewriter together after which the details of the statement are typed in the outline 53 on the overlay sheet 55 and the address of the addressee is typed within the outline 57 of the hole 41 of said envelope. The overlay sheet 55 is thus provided with a ribbon copy of the data typed on envelope 20 while a carbon copy of the address is applied to the front pocket wall 26 while carbon copies of the statement data are applied to the upper faces of both the secondary flap 29 and the front pocket wall 26. The patch of carbon paper 56 is of course detached from overlay sheet 55 and discarded before filing said overlay sheet. Also shown in FIG. 17 is an underlay sheet shown as underlying a convertible envelope 20 in direct superimposed relation therewith. This underlay sheet being of the same size and kind of paper as the overlay sheet 55, and has a patch of carbon paper 60 lightly attached by spots of glue to the upper surface thereof said patch having the carbon thereof facing downwardly and being of the same size and similarly located relative to underlay sheet 59 as the patch of carbon paper 56 is relative to overlay sheet 55. When using underlay sheet 59 in conjunction with convertible envelope 20, the latter is superimposed above said sheet and the two are inserted in a typewriter together after which the typing above described which is done on envelope 20 to prepare this for its initial mailing is completed with one insertion into the typewriter, and a carbon copy of the matter thus typed on the convertible envelope 20 is transferred by carbon paper 60 onto the underlay sheet 59. Thus when the convertible envelope 20 and underlay sheet 59 are removed from the typewriter, the patch of carbon paper 60 is immediately detached and discarded and the sheet 59 bearing the record thus taken from envelope 20 is placed in the files of the original sender of said envelope. The claims are: 1. A convertible envelope provided to be mailed by an original sender to an

addressee for transmittin. @ a message requiring a reply, said envelope comprising: a sheet of paper transversely creased to divide said sheet into the following elements arranged consecutively, a front envelope pocket wall, a back envelope pocket wall, a primary envelope closing flap, and a secondary envelope closing flap said pocket walls being connected together along their lateral edges to form an envelope, pocket said primary flap also having a transverse fold bisecting area of said flap and causing said primary flap to be folded forwardly upon itself to invert said secondary flap and superimpose it upon said front pocket wall, said secondary flap having a hole through which the address of the addressee may be written within a certain area on said front pocket wall exposed through said hole; pressure sensitive copying means responsive to pressure applied to the upwardly exposed surface of said secondary flap in writing or typing a message thereon to produce a copy of said message directly therebeneath on said front pocket wall; means for holding said secondary flap in closure in relation with said pocket when said two flaps are wound backwardly around said pocket for the initial mailing of said envelope thereby hiding said message and the copy thereof while exposing said address to view through said hole; and means for holding said primary flap in closure in relation with said pocket when folded forwardly against said front pocket wall after said secondary flap has been separated from said primary flap by the addressee for the return mailing of said envelope. 2. A convertible envelope as recited in claim 1 wherein a gummed tertiary flap is also provided by said sheet of paper for securing the outer edge of said secondary flap to said primary flap to hold said secondary flap in closure relation with said pocket during initial mailing. 3. A convertible envelope as recited in claim 1 wherein the surface of said sheet of paper on which said message is written and on which the copy thereof is to be produced is coated with an activating agent for producing marks on said surface when contacted by a second normally clear agent and wherein the opposite surface of said sheet of paper is provided with a coating embodying minute sealed capsules of said second agent, whereby writing or typing a message on the upwardly exposed face of said secondary flap when the latter is initially inverted in superimposed relation with said front pocket wall will rupture said capsules and produce a copy of said message on the upwardly exposed face of said pocket wall, said coatings comprising pressure sensitive copying means. 4. A convertible envelope as recited in claim 3 wherein said envelope in its original form includes an insert sheet inserted between said front pocket wall and said secondary envelope flap, said insert sheet having its upper surface provided with a coating like said first mentioned coating and its bottom surface is provided with a coating like said subsequently mentioned coating whereby a copy will be received on said insert sheet of the message written or typed on said secondary flap and wherein said address may be written or typed on said secondary flap and wherein said address may be written or typed within said hole directly on said insert sheet and copies of said message and said address will be transmitted by said insert sheet onto said front pocket wall. 5. A convertible envelope as recited in claim 1 wherein said pressure sensitive manifold copying means comprises a sheet of carbon paper lightly secured to said front pocket wall and coextensive in its dimensions with the area provided on said secondary flap for receiving said message. 6. A convertible envelope as recited in claim 1 wherein said envelope in its original folded form includes an over 75 lay file copy sheet of paper of approximately the same

US-PAT-NO: 3211469

DOCUMENT-IDENTIFIER: US 3211469 A

TITLE: Mailable message form

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OCR Scanned Text - LPAR (4):

United States Patent Office 32211,460 3,211,469

MAILABLE MESSAGE FORM

John T. Chamberlain, 125 Merlin Ave., North Tarrytown, N.Y.

Filed June 4, 1963,

Ser No. 285,370

6 Claims. (Cl. 2@i-11.5)

This invention relates to mailable message forms, such, for example, as are used for sending out monthly billing statements and for other purposes. These forms commonly consist of a plurality of individual communication forms arranged in relatively large sheets and divided from one another by lines of perforations. The large sheet forms are adapted to be placed in a printing machine or typewriter and the name and address of an addressee, along with an appropriate message, is printed upon the individual communication forms in succession. The several communication forms are then separated or "bursted" from one another and the mailing piece thereof is sent to the addressee. Each of these communication forms generally contains a plurality of paper sheets, one of which is usually an office copy containing the name and address of the addressee, as well as the message to be conveyed to him; while the underlying sheet or sheets may be similarly printed, through the interposition of carbon paper or similar transfer medium. This transfer medium may be so positioned as to include both the address and message or either selectively, as is desired. After the several individual communication forms of the complete form are printed, they are separated from one another, the carbons removed, along with the office copies, and the remainder of each communication form is mailed to the addressee. For ordinary billing, each communication form generally embodies two sheets, one of which constitutes the office copy and the other the mailable message or message piece. Prior practice requires that forms of the character described be used in the following manner: (1) Print the name, address and message. (2) Burst, i.e., separate each communication from the others and decollate the carbons. (3) Fold and stuff the message part in a window envelope in such a way that the address will show through the window. (4) If the envelope is not of the window variety, print the address by a separate operation on the envelope itself. (5) Seal the envelope for mailing. The present invention has several objects, including, inter alia: a. The provision of a communication form including a mailing envelope on the exterior of which is printed, simultaneously with the other printing of the form, the name and address of the addressee, and on the interior of the envelope the message to be conveyed to the addressee, the latter of which is printed at the same time as the other parts of the form are printed to thereby eliminate the necessity of the separate printing of envelopes and the stuffing of the message therein as heretofore required in the absence of window envelopes. b. The inclusion, as a part of the communication form, of a return envelope in which, for example, a check in payment of the statement rendered may be enclosed by the addressee and

mailed to the addressor. This return envelope may be printed, if desired, at the same time as the printing of the other portions of the complete form, although this is not necessary as the address of the billing party may be pre-printed on the exterior of the return envelope. Patented Oct. 12, 1965 2 Certain advantageous features of this invention are, inter alia: (1) The printing of a message and addressed mailer at a single pass through one piece of printing equipment. (2) Elimination of collation of the several parts of the mailing piece, including a return envelope, etc., to render such parts ready for mailing. (3) Elimination of the folding of forms and stuffing them into envelopes. 10 (4) Elimination of a separate mailing envelope. (5) The message inside the return envelope facilitates the operations of the initial user by informing him of the original message without reference to account books. The message which may be inserted within the return envelope will be available as input to a computer system through the use of optical scanners. (6) Substantial reduction of postage of the mailing piece. Features of the invention, other than those adverted to, will be apparent from the hereinafter detailed description and appended claims, when read in conjunction with the accompanying drawings. The accompanying drawings illustrate one practical embodiment of the invention, but the construction therein shown is to be understood as illustrative, only, and not as defining the limits of the invention.

FIG. 1 is a fragmental face view of a form embodying the present invention.

FIG. 2 is a like view of one communication form, the 30- successive sheets whereof are shown as successively broken away to show underlying parts. This view also includes a return envelope which may or may not be included as desired.

FIG. 3 is an edge view of the structure shown in FIG. 35 2 looking from the direction of the arrows 3-3 in FIG. 2.

FIG. 4 is a perspective view showing the file copy and carbons in the course of removal.

FIG. 5 shows the actual mailer in perspective with the right hand end bulged open.

40 FIG. 6 is a section on the line 6-6 of FIG. 5.

FIG. 7 is a section on the line 7-7 of FIG. 5.

FIG. 8 is a perspective view showing how the sheet carrying the addressee's name and address, as well as the return envelope, may be removed by the addressee upon 45 receipt of the communication.

FIG. 9 is a face view of the removed return envelope.

FIG. 10 is a transverse section taken on the line 10-10 of FIG. 9.

FIG. 1 of the drawings is a fragmental view of the 50 form in which one complete communication I is illustrated while other like communication forms are indicated at 1a. The form, such as shown in FIG. 1, is subjected to the desired printing operation after which the several printed communications are separated from one another. 55 For the purpose of this description, reference will be made primarily to one communication form and communication, it being understood that the remaining communications will be similarly prepared and subsequently manipulated and mailed. 60 FIGS. 2 and 3 show one complete communication form as it is printed. It consists of three or four parts or units, the fourth unit being the return envelope. The first or top unit 2 consists of a single sheet of paper on which may be pre-printed any desired matter, although 65 this unit may be initially left blank. The unit 2 is connected to an edge strip 4 having holes 3, adapting it for cooperation with the print feed of a printer and, adjacent this border strip, unit 2

may be provided with a line of weakening, such as smar perforations, so that said unit 70 may be easily separated from the edge strip 4.

OCR Scanned Text - LPAR (5): @31211,469 3 During the printing of the communication there will be provided on the exposed surface of the unit 2, both the name and address (if the Eiddrogsi@e and the message which is simultaneously printed on an underlying unit 6, so that the unit 2 may later serve as an office or file copy. 5 Beneath the unit 2 is a sheet 5, the lower portion 5a of the under surface of which has deposited thereon transferring material, such as carbon. - The surface 5a is so located and of such extent as to transfer the name and address of the addressee to the underlying upper sheet 7 10 of the mailer unit 6 when said printing is applied to the , sheet 2. The mailer unit 6 initially comprises three superimposed sheets 7, 8 and 9. The sheet 8, which lies beneath the sheet 7, is a sheet of carbon paper. The underlying sheet 15 9 is adapted to be printed on its upper face through the interposed carbon sheet 8. The sheets 7, 8 and 9 of the mailer, are connected to the border portion 4 along weakened lines, such as lines of perforations 4a. As shown in FIGS. 2, 3 and 4, the sheets 2, 5, 7, 8 and 9 all extend 20 for the full height of each individual communication form and for the full length thereof. The mailer 6 is shown best in FIGS. 4@7 inclusive. It also extends for the full height of, the communication form, but there are lines of perforations @ 13 and 14 in . the 25 top sheet 7 and the carbon @sheet 8. The perforations 13 extend longitudinally ther@of @in@ spaced relation to its upper and lower edges. The lines of perforations 14 extend along one edge portion of the sheets 7 and 8 but on 7 are interrupted at substantially midway of the height 30 of the form to provide a tab, 15. The sheets 7, 8 and 9 are adhesively secured at 14a to one another along the three sides of the border of the mailer exteriorly of the perforated lines 13 and 14, while the right hand end of the sheets 7 and 9 of the mailer are connected to the 35 edge strip 4 along weakened lines such as perforations 4a. 1 The mailer thus comprises an envelope open at, one end with a tab 15@ at its opposite end which may be grasped by the addressee and torn from the remainder of be withdrawn from the remainder of the mailer, as shown in FIG. 4, simply by pulling the strip 4 to the right, while the remainder of the mailer is held in place. This is possible because the lines of weakening 13a in this carbon 45 sheet 8 are very fragile. Bene@ath the mailer unit 6 is positioned, a return envelope 10 which preferably forms the fourth unit of the communication form. It comprises an upper sheet 11 and a lower sheet 12. On the upper surface of the sheet 50 11 may be pre-printed the return address of the initial addressor The return envelope unit @io is shown-best in FIGS. 8 9 and 10. Its left hand edge is secured to the back sheet 9 of the mailer along the margin 16 between said edge, and lines of perforations 17 which extend through both of the sheets 11 and 12. Between the line of perforations 17 and the line 18, the sheets 11 and 12 of the return envelope are also adhesively secured to one another, so as to close that said envelope. The lowermost sheet 12 of the return envelope unit 10 is provided with a flap 19, to the opposite corners 20 of which is applied a coating of adhesive set off from the remainder of the flap by lines of perforations 21, while 65 opposite the intermediate portion of the flap, the top face 1 of the sheet 11 has applied thereto a dry adhesive 22. When the return envelope unit 10 is initially assembled, the triangular corner portions 20 thereof are, adhered to the back face of the sheet 9. However, when the envelope is stripped from the mailer upon receipt by the addressee, the flap 19 may be opened by tearing it along the dotted lines 21, leaving the corner portions 20, of said flap adhered to the bottom surface of the sheet, 9 of the mailer, as .5,bpiKa

@q ElCi, 8. -The addressee may then 75 4 place a check or other enclosure within the@ envelot)e, dampen the adhesive portions 22, bend over the flap 19 and sectire it to the adhesive 22, to thus seal the-envelope so that it may be returned to the initial sender. Each completely assembled communication form is printed during one and the same passage through a printing machine, during which all of the printing of the form is completed. On the office copy 2, is printed the name and address of the addressee and the complete message so that an office record may be kept of this transaction. By virtue of the carbon sheet 5, th& name and address of the addressee is printed upon the front sheet 7 of the mailer 6, but the message is not printed thereon. Simultaneously and by virtue of the interposed carbon sheet 8, the name and address of the addressee is printed on the sheet 9 to. @ether with the complete message, e.g., particulars of the statement of account, or other message depending upon the particular use of the subject matter. In some cases it is desired to also print upon the inner surface of the back sheet 12 of the return envelope . If this be ;desired, a sheet of carbon paper 23 (FIG. 3) is interpo@ed between the sheets 11 and 12, so that this printing may be simultaneously performed. If such latter carbon sheet With longitudinal fragile lines of weakening is included,- it is firmly secured to the end strip 4, so that it is withdral@, @n along with the carbon sheet 8 after the 'manner shown in-FIG. 4. If desired, the name and address of the iniiial addressor may be pre-printed on the upper suface of the, sheet 11. This latter printing will of course be carried: but before the several sheets are assembled. In like manner, other sheets or units of the assembly may be pre-printed with any desired matter before the sheets are assembled without departing from this invention. ' The printed mailer is forwarded through the mails in the form shown in FIGS. 5, 6 and 7 with one end of said mailer open. In some cases, said mailer may be thiis forwarded without the attached rettirn envelope although -that envelope unit 10 may be incorporated into the described as carbon paper but for this may be substituted any suitable transfer medium either separately or as part of the s&veral sheets through which the printing is to be transferred. These transfer means are considered equivalent in this invention. The present invention has been particularly described, for the purpose of illustration, as utilized in connection with billing procedures in which case the return envelope unit 10 is useful since, ' it pr6vides convenient means for insertion of a check or other payment of the bill. I wish it understood, however, that the invention is not restricted to billing procedures as this form is adapted forwidely varying -uses. For -example, for the mailing of accounts receival@le. statements and bills, status reports, mess6ge of any individual nature, dividend checks, or any payable ..,obligatiohs, ' fo' some of -,@hich uses the return envelope is d@sirable, while in other cases, such return envelope ma@ be omitted. It will be apparent from the foregoin g that the business form of @ the present invention embodie s numetou s hovel features, some of which may be employe d without employin g all. In any event, this invention provides a highly efficient means of business commun ication along the lines hereinbe fore stated.. It provides a simple, economi cal and efficient means for carrying out the indicated purposes . Each commun ication is comple te for its intended purpose, in contradistinction to the handling of separate forms and envelope s and in some cases separate ly printed envelo es .p and stuffing. procedures. It is an ideal form for use in printing machines of all kinds, including high speed printers, particularly when a plurality of these communicatioll forms. are assembled iii a sheet or roll which may be conveniently handled. in such machines, Also it materially the mailer along the perforated lines 13 and 14. The 40 combination when so desired. carbon sheet 8, permanently attached to the strip 41- may @Certain of the sheets hereinbefore referred to have been

US-PAT-NO: 3437259

DOCUMENT-IDENTIFIER: US 3437259 A

TITLE: CONTINUOUS ENVELOPE ASSEMBLY

----- KWIC -----

OCR Scanned Text - LPAR (3): Um"ted States Patent Office 31437,259 3,437,259  
CONTIWOUS ENVELOPE ASSEMBLY

Donald J. Steidinger, Barrington, Ill., assignor to Uareo Incorporated, a corporation of Illinois

Filed Mar. 1, 1967,

Ser. No. 619,733

Int. Cl. B65d 27110, 27106

U.S. Cl. 229-69

10 Claims

#### ABSTRACT OF THE DISCLOSURE

A continuous form envelope 6ssembly comprised of superimposed plies defining fronts and backs of sealed envelopes delimited by spaced glue lines and transverse lines of weakening for separating the individual envelope units from the assembly, wherein each envelope of the completed assembly is provided with an opening in a marginal edge to facilitate subsequent insertion of additional material, and means in the form of an adhesive line for sealing the opening.

#### BACKGROUND OF THE INVENTION

##### Field of the invention

This invention relates to continuous form envelope assemblies and more particularly to, an envelope assembly which is provided with envelope front and back sheets and insert materials and with a means for inserting additional material to the interior of the envelope subsequent to the assembly thereof but prior to sending the same to a recipient, which means is closable prior to so sending the envelope to a recipient. Description of the prior art Pertinent prior art in this field includes my issued Patent No. 3,104,799, entitled ",Envelope Assembly." This patent discloses a continuous envelope assembly wherein insert material is captivated between envelope front and back plies in one margin and access may be gained to the interior of the envelope and the insert material placed in a condition for extraction by removing one margin of the envelope along a line of weakening. The entire assembly may be pre-printed with- non-variable information, such as return address, -fixed information on the insert sheet, and a mailing permit. After assembly, further printing in the form of variable information, such as a recipient's address and an amount owing or amount due each recipient may be printed on the exterior of the envelopes as well as to the interior thereof with the aid of spot carbons, or the like. Then each envelope may be separated from the assembly along transverse lines of weakening and mailed to the recipient. Summary of the, invention The present invention is, in brief, an improvement in the aforementioned Patent No. 3,104,799 in that it is directed to the provision of a means in the assembly for adding additional material to each envelope of the assembly at a time and point remote from the initial assembly thereof. Furthermore, each envelope may then be completely sealed after the insertion of the

additional material prior to mailing to a recipient. An example of an ideal application for this invention is in the field of monthly bank statements. The pre-assembled insert material, which is in the initial envelope assembly, may be a monthly statement which is calculated on a business machine which also addresses the envelopes. Spot carbons in the interior of the envelope transfer the pertinent information to the insert material. The cancelled checks may be subsequently inserted into each envelope, the envelope sealed, and then sent to a recipient. It is a primary object of this invention to provide an improved continuous envelope assembly. Patented Apr. 8, 1969. It is another object of this invention to provide an improved continuous envelope assembly having means for inserting additional material into the assembly at a point remote in time and place from the initial assembly but prior to mailing the envelope to a recipient. Another object of this invention is to provide a continuous form envelope assembly which as initially assembled is provided with means for adding supplementary insert material and sealing the enclosure prior to mailing the envelope to a recipient. Other objects and advantages will be readily apparent from the following detailed description taken in connection with the accompanying drawings, in which: 15

#### Brief description of the drawings

FIGURE 1 is a fragmentary, broken, top plan view partially broken away in section, of a portion of the envelope assembly of this invention;

FIGURE 2 is an exploded section view, taken generally 20 along the line 2--1 of FIGURE 1; FIGURE 3 is a perspective view of an individual envelope from the completed assembly, showing supplementary insert material being inserted into the envelope, one corner of the envelope being turned back for clarity of illustration;

FIGURE 4 is a fragmentary perspective view of one marginal edge of the envelope after the supplementary insert material has been inserted into the envelope and the one open edge sealed; FIGURE 5 is a fragmentary sectional view taken generally along the line 5-5 of FIGURE 4; FIGURE 6 is a fragmentary top plan view, partially broken away in section, of an alternate form of the invention;

35 FIGURE 7 is a top plan view of an individual envelope separated from the assembly shown in FIGURE 6, with portions turned back for clarity of illustration, and showing an item of supplementary insert material about to be inserted into the envelope; and

40 FIGURE 8 is an exploded section view, taken generally along the line 8-8 of FIGURE 7.

#### Description of the preferred embodiments

Envelope assembly 10, as shown in FIGURES 1 and 2, includes an overlying master or record ply 12, a sheet of transfer material, such as carbon paper and the like 14, a continuous envelope front stationery strip 16, which may have standard indicia such as a mailing permit 16', pre-printed thereon, an insert sheet 18, which may, as illustrated, be in continuous strip form and suitably die-cut at spaced points 18', and an envelope back sheet 20. Generally the nature of the assembly is similar to that shown in my Patent No. 3,104,799. The record ply 12 may be separated from the assembly and retained for office use, and carbon ply 14 may be discarded. Certain non-variable information in addition to the pre-printed indicia 16' (such as a customer's name and address and an amount owing) may be subsequently printed on the envelope assembly and in the insert ply by business machines with the aid of spot carbons or the like in the in-

terior of the assembly as shown and described in the- aforementioned Patent 3,104,799. Control punch holes 22 are provided in one margin, such as margins 12a, 14a, 16a, 18a and 20a of the several plies 12, 14, 16, 18 and 20, respectively, as well as in the 65 site margins 12b, 14b and 16b of plies 12, 14 and 16, oppo to assist in feeding the assembly and maintaining the same in registratioon during assembly and pre-printing thereof. Longitudinally extending glue lines 24a and 24b adhere plies 16, 18 and 20 together inside the marginal edges 70 16a, 18a and 20a. In addition, spaced transversely extending glue lines 26 adhere plies 16 and 20 together between

US-PAT-NO: 6136129

DOCUMENT-IDENTIFIER: US 6136129 A

TITLE: Label system and method for delivering mailpiece with return receipt

DATE-ISSUED: October 24, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Petkovsek; Glenn	Little Rock	AR	72223	N/A
US-CL-CURRENT: 156/247; 156/249 ; 156/277 ; 156/DIG.2 ; 283/101 ; 283/105 ; 283/81 ; 283/94 ; 428/41.7 ; 428/42.3 ; 428/43				

ABSTRACT: A label useful in delivering packages and articles via many different mailing services. The label is adapted to indicate thereon mailing and address information relating to the mailing, shipping or handling of packages or articles. The label is constructed as a laminate having at least a primary layer and a secondary layer wherein each layer has a surface confronting and adjoined to the other layer. The label has an exposed front side defined on the primary layer and an exposed back side defined on the secondary layer. Pertinent mailing information is included on the exposed front side and may include a plurality of printed instructions and information and also include spaces for receiving additional mailing information thereon. The label has a tear line provided on the primary layer which defines a removable receipt flap on the label. The receipt flap contains a portion of the mailing information and is also adapted to receive thereon additional information as well. An area is exposed beneath the receipt flap on the secondary layer when the receipt flap is removed from the primary layer along the tear line. The exposed area is adapted to show at least a portion of the additional information added to the receipt flap prior to its removal.

27 Claims, 9 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 4

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Brief Summary Text - BSTX: A typical mailing label for packages and articles to be mailed wherein the time or the day of delivery is critical includes multiple layers which are joined together along one side by a tear strip. The tear strip is usually an edge portion of each layer permanently adhered to one another and includes a perforated tear line for removing each layer sheet from the tear strip as needed. The upper most layer is an information sheet to which information regarding addressee and sender information may be added as is known in the art. The subsequent layers may have carbonless print transfer layers or sometimes further include intermediate carbon paper layers for transferring information printed on the uppermost information sheet to all of the layers of the label. The lower most layer sometimes includes an adhesive layer or backing for attaching the label to a package or article and further includes a removable adhesive cover sheet for protecting the adhesive until the label is to be attached to the article or package. One example of such a mailing label is the label assembly used for Express Mail packages by the United States Postal Service.

Brief Summary Text - BSTX: For a typical Express Mail label, one layer is usually returned to

the mailing party for their files and for proof of mailing. This copy typically is one of the intermediate carbonless transfer layers and includes all of the information printed on or added to the information sheet. The other layers may go to various departments within the mail service provider for tracking and billing purposes. The uppermost sheet is retained on the label until delivery at which time delivery information is added to it. This loose sheet contains much information not needed on a return receipt and further may be damaged or accidentally torn from the label during shipping.

US-PAT-NO: 6505770

DOCUMENT-IDENTIFIER: US 6505770 B1

TITLE: Outgoing and reply envelopes with improvements to reduce possibility of damage

DATE-ISSUED: January 14, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Correa, Jr.; Manuel A.	Olney	MD	20832	N/A
US-CL-CURRENT: 229/301; 229/316				

ABSTRACT: A postal envelope system has an outgoing envelope containing a billing statement and a reply envelope. The reply envelope has a flap for closing the envelope. The outgoing envelope has a tab for opening it. The tab has a portion which is held and pulled in order to open the envelope. The flap of the return envelope and a small portion of the billing statement is directly under the tab of the outgoing envelope. The flap and the billing statement are positioned and have a shape, which keeps them outside of the paths of a finger and thumb that are moving into a position for grasping said tab portion so that the billing statement and flap are not grabbed and pulled along with the tab portion and tab.

16 Claims, 15 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 15

----- KWIC -----

Brief Summary Text - BSTX: The above problem is solved by the present invention. The flap on the reply envelope is formed from a sheet of paper which sheet becomes the rear wall of the reply envelope. By reshaping said sheet, and by reshaping the bill, the probability that an inexperienced person will damage the reply envelope and bill when he, or she, opens the outgoing one is greatly reduced.

Drawing Description Text - DRTX: FIG. 7 is a block diagram of a front face of Part IV, which forms a portion of a reply envelope of the postal envelope form system of the present invention, and depicts colored areas and white areas which are a mirror image of carbon spots shown in FIG. 6.

Drawing Description Text - DRTX: FIG. 8 is a block diagram of a back face of Part IV, which forms the same portion of the reply envelope shown in mirror image of FIG. 7, and depicts security screened areas, and shows block-out areas in solid dark blocks.

Drawing Description Text - DRTX: FIG. 10 is a block diagram of a back face of Part V, which is the outside of another portion forming the reply envelope, and depicts colored areas and printed directions.

Detailed Description Text - DETX: Part IV 400 and Part V 500 are attached together to form a reply envelope 30 which is readily separable from the other attached parts of system 10 as will be

described in detail below. Part IV 400, being made of thicker and heavier paper, provides significant strength to both the reply envelope 30 and outgoing envelope 20 which assists in preserving postal envelope form system 10 upon encountering processing machinery. Additionally, attaching Parts I-VI by gluing right side edge bolsters the durability of postal envelope form system 10 which typically progress through postal processing machinery with the right edge leading the remainder of the Parts.

**Detailed Description Text - DETX:** The information contained within customer return address area 110 is transferred by carbon spot 204 to billing statement (Part III) 300 within a customer return address area 310 shown in FIG. 5. FIG. 5 is a block diagram of a front face of Part III, which forms a billing statement of the postal envelope form system of the present invention, and depicts colored areas 350 among which white areas such as customer return address area 310 are located. Other white areas located among colored areas 350 include a sender return address area 302, a customer mailing address area 304, a sender mailing address area 312, a response detail area 314, and a message area 316. The same information imparted to originating sheet (Part I) is imparted to billing statement (Part III) 300, with the exception of the postage permit 106 and a face identification mark (FIM) discussed below. Thus, billing statement (Part III) 300 contains complete information.

**Detailed Description Text - DETX:** FIG. 7 is a block diagram of a front face of Part IV, which forms a portion (the front sheet) of reply envelope 30 of the postal envelope form system of the present invention. FIG. 7 depicts colored area 701, and white areas which are a mirror image of carbon spots shown in FIG. 6. Specifically, FIG. 7 shows a customer return address area 710, a distributor mailing address area 712, and a FIM mark 740 as white areas. Note boxes 710, 712 and 740 on FIG. 7 are much larger than their twin image on FIG. 3. This is necessary to ensure scanability. The white area provides high contrast with the information contained therein which was imparted by the carbon spots 610, 612, and 640 shown in FIG. 6. FIG. 7 is a front view of reply envelope 30 and therefore the positions of areas 710, 712, and 740 match with the positions of areas 110, 112, and 140 shown in FIG. 1; whereas the areas 610, 612, and 640 of FIG. 6 are mirror imaged in comparison because FIG. 6 is a back view.

**Detailed Description Text - DETX:** FIG. 8 is a block diagram of a back face of Part IV, which forms the same portion of the reply envelope shown in mirror image of FIG. 7. FIG. 8 depicts security screened areas 802, and shows block-out areas in solid dark blocks 810, 812 and 840 which correspond to areas 710, 712 and 740 in FIG. 7. The security screened area 802 prevents information contained within reply envelope 30 from being either read or scanned through the paper of envelope 30. Dark blocks 810, 812 and 840 enhanced the scanability of the reply envelope address data in white block's 710, 740 and 712. Blocks 810, 812 and 840 prevents any image of envelope contents or security pattern from showing through the front of the reply envelope. This prevents information contained in the reply envelope under the areas of 710, 712 and 740 from being mistakenly scanned by postal processing equipment attempting to scan reply envelope 30. It has been found that printing only the security screen without dark blocks 810, 812, and 840, caused errors in scanning. Scanning errors were reducing the accuracy rate required to qualify for the best postage discounts. However by printing the dark blocks 810, 812 and 840 the

greatly improved to scan accuracy to well above the 90% requirement.

**Detailed Description Text - DETX:** FIG. 8 also depicts a flap 880, formed by line of weakness 885 and edge 886, upon which moistenable glue is placed. Flap 880 can contain parallel lines of glue to better ensure that envelope 30 seals properly. Flap 880 also serves as a direction area. The directions in this embodiment instruct the user to "MOISTEN THIS FLAP, THEN FOLD FLAP OVER TO SEAL." Flap 880 folds about line 885 and attaches to the other portion of envelope 30 formed by Part V 500. The directions in this embodiment also instruct the user to "Pull To Remove Contents." The removal instruction is for separating the reply envelope 30 (Parts IV and V) and billing statement 300 (Part III) from outgoing envelope 20. The separation is achieved in part due to lines of weakness formed before the various Parts I-VI are attached together. Specifically, line of weakness 883 is a perforation that allows easy separation by simply pulling reply envelope 30 (Parts IV and V) and billing statement 300 (Part III) from outgoing envelope 20. Line of weakness 883 once completely weakened form the boundary of reply envelope 30 along with an edge 886.

**Detailed Description Text - DETX:** FIG. 9 is a block diagram of a front face Part V of the back of reply envelope 30. FIG. 9 depicts a security screened area 900 that prevents sensitive information contained within reply envelope 30 from being easily read through the sometimes transparent sheets of paper forming the various Parts of postal envelope form system 10. An edge 902 is attached, such as by glue, to a correspond edge on the back of Part IV 400 shown in FIG. 8. An edge 904 is left unattached so that an opening is formed in reply envelope 30.

**Detailed Description Text - DETX:** FIG. 10 is a block diagram of a back face of Part V, which is the outside of the other portion forming reply envelope 30. FIG. 10 depicts colored area 1002 and printed direction area 1004. A flap 1006 formed by a line of weakness 1008 and an edge 1010 is glued to a front face of Part VI 600 so that when a tab of Part VI 600 is removed, flap 1006 is removed along with it. In the event that flap 1006 is not removed as intended, instructions reading "REMOVE" clearly tell the user what to do. The gummed flap referred to is that flap 880 mentioned above in conjunction with FIG. 8.

**Detailed Description Text - DETX:** System 10 establishes focal points on both outgoing and reply envelopes in the form of white boxes which contain the variable data in the form of to and from addresses, delivery point barcodes and FIM mark. These focal points helps the postal equipment to find, read and sort with a very high degree of accuracy approaching 100%. Managing printer impact on system 10 to achieve a scan accuracy of almost 100% required careful selection of paper weights. The fundamentals of this invention can be applied to an unlimited array of form requirements and sizes. This system is very flexible. While this invention has been described in connection with what is presently considered to be most practical and preferred embodiments, it is to be understood that the invention is not limited to the disclosed embodiments, but, on the contrary, is intended to cover various modifications and equivalent arrangements included within the spirit and scope of the appended claims. For example, fewer than six parts could be used while still imparting substantially the same information on the number of parts actually used. Additionally, another embodiment of the present invention would replace the originating sheet with

an electronically stored version of the information contained on the originating sheet, thereby allowing fewer than six parts to be used. Furthermore, it is envisioned that equivalents of the specific paper types and weights combinations could be readily used to achieve transfer of information through the number of parts used in an embodiment. Alternatively, when greater than six parts are used, adjustment of part weights and types are necessary to image through the parts, depending on printer strike force. Similarly, improvements in either impact printers and/or postal processing equipment in use may bring about equivalent embodiments, as long as the printer used is able to legibly impart the information that is readable/scannable by the postal processing equipment.

Detailed Description Text - DETX: FIG. 15 is a further modified form in which the billing statement 1507a and reply envelope 1504b remain as full rectangles, but the tab portion 1509 of tab 1511 has been moved so far to the left that the corners 1510 of the flap of the return envelope and of the billing statement are out of the paths of a finger and thumb moving into a position where they will pinch the tab portion 1509.

US-PAT-NO: 2257766

DOCUMENT-IDENTIFIER: US 2257766 A

TITLE: OCR SCANNED DOCUMENT

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LPAR: Patented Oct 7 2 257p766 .,1941 UNITED STATES PATENT OFFICE 2,257,766 SERJ[ES CONNECTED ENVELOPE AND CHECK Johim Q. Sherman, Dayton, Ohio; Katherine M. Sherman, WUHam C. Sherman, and Welbnore B. Tamer executors of said John Q. Shernian, deceased Application April 2,1936, serial No. 72,399 Renewed March 1, 1940 38 Claims. (Cl. 282-3),, This invention relates to manifolding systems inserting them into and removing them individuand assemblies, of material, and more@. particu- L, ally from the writing inachine. iarl@ to-:4@ stationery' sild envelope imwembly I A further object of the Invention is to econo-@ wherein by a single writing operation data sheets, mize time and operations. checks, bills, order blaiiks, or the like may be 5 With the above. Priinary and other incidental inscribed an eith@r all or a portion of L the in- objects in view, as wUl more fully appeai in .d scription thereon simultaneously reproduced the specification, the Invention consists of the upon an underlying envelope to subsequently re- features of construotion, the parts and combina- ceive the record slip. tions thereof, and the mode of operation, or In thi@ present manitokung assethably a contin- lo their equivalents, as- hereinafter described and- uous strip of detachably interconnected record portions which may comprise a succession of 'checks, bills, order blariks, or data isheets, cilrries associated therewith a corr@-sponding series of enyelopes, one for each detachable portion of the carrier strip, either positioned in pockets on the rear side of such strip of series connected stationery, or detachably secured thereto. The backs of successive detarable portions of the carrier strip are carbon spotted, or slip@ of transfer material are interpowd between the stationery and the envelopes to effect a transfer from the inscribed sUp or form to the envelope of at least a portion of We Inscription being written thereon.' The strip of series connected stationery portions, by which the succession of envelopes is carried, is marginally punched for engagement of pin type feeding' means for positively advancing the stationery strip and accompanying envelopes simultaneously past a writing position. The object of the invention is to provide a manifolding assembly of envelopes and "Mler" slips or sheets for use therein, which may be . economically manufactured and which will en-itable forms such as bills, checks, ord6r blanks, form letters, or the like, and accompanying envelopes to be easily and quickly correspondingly inscribed in a conventional writing or comput- ing inachine.... 1 A further object of, the Invention is to minimize the labor of LInscribing related data sheets and envelopes therefor and to insure exact cor- respondence thereof and avoid liability of errors. A further object of@the invention is to maintain related inscribed envelopes and ffler sheets therefor in association with each other until combined, thereby avoiding possibility of transposition or irisertion of ffler sheets in the wrong envelopes. A fuither object of the Invention is to etiable data sheets and corresponding envelopes to be rapidly fed throug4 a writing machine and inscribed therein without loss of time in assem- set forth in the claims. Referring to the accompanying drawing wherein is shown the preferred but obviously not necessarily the only form of embodiment of thd 15 invention, Fig. 1 is a perspective view of a packet of assembled envelopes and fwer sheets therefor ii3 continuous

series connecte'd form enibodying the present invention. 20 Fig. 2 is a reverse view of a portion of the envelope and filler sheet, assembly. Fig. 3 is a further perspective vi@w thereof. Fig. 4 is a perspective view of a modifleation showing transfer slips of carbon materiai as@ 25 sociated with the envelopes. Fig. 5 Is a perspective view Illustrating a firther mbdi:ftcation. Fig. 6 is a transverse sectional view upon somewhat exaggerated scale. 30 Like parts are indicated by similar characters of reference throughout the several views'. For purpose of illustration, but with no intent to unduly limit the application or scope of the invention, it has been illustrated as embodied 35 in a continuous assembl@ of series conlected detachable checks to be used aS PAYL checks or the like and accompanying pav envelopes, both to be Inscribed with the name of the payee and perhaps with his address, department, or em40 ployment identification number, or such other indicia as may be found convenient or desirable. It is to be unde-stood, however, that the invention is not limited to inscribing pay checks and pay envelopes for reception of such checks, 45 but may be used by utilities for inscribing gas, electric light, or water bius and simultaneously addressing the envelopes Lin which such bins or statements are to be MaUed. The invention is also applicable to other purposes such as inscrib- r)O ing order blanks and their accompanyi7ag envelopes or for fLULing In the name and address of the addressee of form letters, the bodies of which may have been Inscribed or imprinted in automatic writing or imprinting macblnes. There- bling separate parts and without the necessity of 55 fore, for the Ourpose of this description, the de-

LPAR: 2 2,257,786 tachable guecesdon of stationary porouns, whether they be checks, blus, order forms, let- ters, or the Uke, wiU be referred to generic&Uy as fuler slips for Insertion in the accompanying envelopes, whether the envelope be for Inter- 5 departmental use, or for maU purposm or as a L-pay envelope. It Is also to. be a@de-rs@@ that the present assembly may include individual rec- ord cards or ' slips removably carri6d by the carrier strip or continuity of series-ronnected 10 stationary portions either as a substitute for the envelope or In addition thereto, in which case the back of the card or sUp would be spotted or an additional slip of transfer mate- rial would be interposed between such card or 15 slip, and the adjacent record receiving surface. P.eferring to the accompanying. drawing, I is a continuous strip of stationary material pro- vided at spaced intervals with transverse division Unes 2, upon which the strip is divisible into a 20 sucesslion of individual checks, bills, sheets, let- ters, or the like. The strip I is of double thick- ness throughout at least a portion of its width. ,The underlying ply 3 may be either an integral portion of th6 strip I folded longitudinauy into 25 underlying relation in fan-fold style, or it may be a separate strip of less width upon which the stationary strip I Is superposed. The underly- Ing ply is united with the stationery strip at spaced Intervals, prefembly coincident with the 30 transverse weakened division lines 2 by means of staples 4, or other suitable means, to forni,,Pn the under side of the stationery strip I a siie- cession @ of pockets 5, one for each of the d6- tachable portions of the'-strip 1. 35 Removably positioned within such pockets 5 Are envelopes S. The backs of the detachable checks, bills, sups, or forms 7 are carbon spot- ted as at 8 with transfer material whereby an In- scriptiion linprinted upon the ftce of the detach- go able stationery portion 7 wul be reproduced up- on the envelope I within the pocket 5. In lieu of carbon spotting the bglck of the check. or other fluer sUp 7, or In the event that a record card is to be inserted within the pocket I additional to the envelo L Pe, s'Ups I of itransfer 45 m terlal may alw

be inserted within the pockets n 9 T; @een the overlying fluer slip and the en- closed, envelope or card as the case may be, folding assembly through a writing machine, themargfns of the stationery strip 'l@are punched at spaced Intervals for engagement of pin type feeding means of a writing or computing machine. The etationery or carrier strip I is preferably, al- C'S though not necessarily, provided with longitudinal weakened lines I I upon which the punched margin may be detached after Inscription of the fffier slips 'T and accompanying enveiopes I has been completed. 6 0 In the event that the staples 4 are -positioned upon the transverse weakened lines 2 'upon wmeh the stationery or carrier strip is divisible into succeeding sheets or filler sups, the act of so dividing the strip after Inscription of succeeding portions automaticauy removes the staples and releases the backing portion 3. However, the stationery strip ma'y be stapled within a waste portion 12 intermediate spaced, transverse weakened lines 2, as shown in Flig. 4. @70 In lieu of either such arrangement, the stationery strip I and underlying backing poition 3 may be stapled together at any desired positipn to provide a pocket to receive an envelope or record card in registry with any pbrtion of & '5 the stationery fluer slip to be inscribed. Such construction Is thustiated in Pig. 5, wherein the IMer slip is of somewhat lerger sim than that of the P-nvelope. In the event that the stationery fluer slips comprlse a succession of form le. tters to be lnwribed with the name and addregs of the addressee. the envelope receiving pocket would ordinarily be defined by the staples 4a. By the epnstruction illustrated in Plig. 5, the envelope receiving pocket may be variously located with relation to the relatively large fluer sup according to whatever position. the inscription Is to be made. While wire staples 4 have been iuustrated in the drawings as the me=s for forming and defining the envelope and 46ard receiving pockets 5, it - is to be understood that any other awtable method or means of attachment may be employed such as thread stitching, or by inurlocking tongues, or portions projected from one ply of @he carrier or stationery strip into the other, or by means of weak or easily broken adhesive. There is no Intent nor desire to limit the construction to the specific features Mustiated. If so desired the stationary assembly heretofore described inay be - accompanied through the writing machine by a separate data or record sheet upon which the inscribed matter Is manifolded by use of Interleaved transfer material. @3uch accompanying record sheet may be advariced at the same rate of gpeed as the stationery assembly forming the subject matter hereof, or the stationery assembly and the record sheet may be differentiaUy'gLvanced at different speeds by employing a writing machine of the chamcter shown in copending application Serial Number 28,480, iued June 26, 1935. From the above decription ft wth be apparent that there Is thus provided a deviee of the character described possessing the particular features of advantage before enumerated as desirable, but which obviously is susceptible of modmeation in Its form, proporuons, detaff construction and arrangement of parts without departing from the principle involved or sacrificing an@, of its advantages. WhRe in order to comply with the statute, the Invention has -been described In language more or less mmine as to stnwatural features, limited to, the owiflc featum shown, but @ that the mes@ and eonokwtion herein disclosed ns comprise, the preferred form of ieveral modes of putting the Inventim into effect, and the Invention is therefore claimed in glny @f its forms or modifications within the legitimate and valid scope of the appended claims. Having thus deserlbed my tnventign, I claim: 1. A manifolding Lswmby Including'a,,continuous strip of series connected detachable stationer7 portions, iL pocket for'med on the'under side of each portion, an L ifiCUVidU\$a dUpliCSte reoord portion and an interposed stratum of transfer material In said

poeket by which Indicia Inscribed upon the face of said detachable portion of said strip win be. reproduced upon the duplicate iecord portion within the pocket. 2. In a manifolding assembly, a succession of series connedted detach&bie inscription receiving portions, a series of loosely Individual record receiving port@ons disposed- with their record receiving faces coincident with the rearward side of the series connected Inscription receiving Portion@, one for each oi said series connected portions, means for maintaining corresponding Pot purpose of positively - advancing the mant- So It is to be understood that the Invention Is not

US-PAT-NO: 3837565

DOCUMENT-IDENTIFIER: US 3837565 A

TITLE: RAPID PRODUCTION ENVELOPE ASSEMBLIES

DATE-ISSUED: September 24, 1974

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Johnsen; Edward L.	Wayland	MA	01778	N/A
US-CL-CURRENT:	229/301,206/232 ,229/314 ,229/316 ,229/69 ,229/81 ,229/92.1 ,283/79 ,283/900 ,462/6			

ABSTRACT: For attaining high speed production of envelope assemblies, with substantial savings of costly time and labor, the present invention teaches a method or plan of manufacture which involves the use of high speed collating machinery such as is customarily employed in the production of continuous record forms, business forms, and the like, from continuous paper webs passed through the collating machinery uninterruptedly at a rapid rate of speed. The envelope assemblies so produced leave the collating machinery as complete units ready for use.

19 Claims, 36 Drawing figures

Number of Drawing Sheets: 9

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DRPR: FIG. 34 is a plan view, parts broken away, and illustrating the envelope produced by folding the FIG. 33 reply form .

DEPR: In the FIG. 7 assembly, the set Q is seen to overlie the adhesive stripe at all locations between score line S and marginal portion M2. Accordingly, as long as set Q is in place upon the form, it is impossible to fold the lower panel P2 along score line S and effect an envelope seal inadvertently. Set Q may include interleaved carbon or transfer sheets 10, 10, separating the pile of message sheets 12, if desired. In use, any intelligence typed or written on a sheet 12 will be carbon-transferred onto the panel P of the base form, whereupon the sheets of set Q may be torn off at line T1 to expose the adhesive of panel P for sealing the form as an envelope. As will be understood, the perforate marginal portion M of the base form will be detached also.

DEPR: When the recipient or addressee accepts delivery of the sealed envelope of FIG. 19, he may open it by removing the glued marginal portion A along the tear line T4 at three sides of the envelope. This will produce the return envelope structure of FIG. 20, when unfolded along line S2. Next, the recipient may impress upon a page 12 of FIG. 20, his reply message 52, which through a carbon sheet beneath it, will be transferred onto panel P1, FIG. 21. He may then remove his page 12 copy from FIG. 20, to produce the single-sheet form of FIG. 21, which by folding along score line S1, will produce the sealed envelope of FIG. 22 showing the original sender's name and address at 54 in window W. When the original sender receives the envelope of FIG. 22, he opens it by tearing off the glued margin A1, thereby gaining access to reply message 50.

DEPR: After the addressee receives the sealed envelope of FIG. 32, he opens it by tearing off the marginal portions M, M, after which he may flatten the form and detach panel P1 therefrom along tear line T3. This will result in FIG. 33. After filling in the information requested at 76, the form is ready for folding and sealing to form the reply or secondary envelope of FIG. 34, which is accomplished by merely folding the form of FIG. 33 along tear line T4, and pressing the lower half onto the upper half of the form. Thus, the adhesive stripe A3 seals upon itself, and similarly, stripe A6 seals upon itself, thereby sealing closed the opposite ends of the envelope. Additional sealing results from the registering of A5 with A5, and A4 with A4, FIG. 33, which seals the upper edge portion of the envelope at A4 and A5, FIG. 34. The envelope so sealed is ready for mailing or otherwise returning it to the sender.

US-PAT-NO: 4461661

DOCUMENT-IDENTIFIER: US 4461661 A

TITLE: Non-tenting business form assemblies and method and apparatus for making the same

DATE-ISSUED: July 24, 1984

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Fabel; Warren M.	Pound Ridge	NY	10756	N/A

US-CL-CURRENT: 156/70,156/108 ,156/252 ,156/272.4 ,156/275.3 ,156/291 ,156/308.4 ,229/303 ,229/314 ,229/69

ABSTRACT: A business form assembly, and the method of forming the same, is described. The business form assembly includes superimposed front and back sheets with at least one of the sheets being provided on the surface thereof facing the other of the sheets with a dormant adhesive in the nature of a thermoplastic material which is rendered activatable by electromagnetic radiation. Sealing lines are formed between the sheets where the dormant adhesive is activated, the resulting sealing lines together defining a receiving compartment suitable for accepting a document for mailing or an object for storage. The sealing lines have generally negligible thicknesses and uniform widths along their lengths. Also described is the apparatus for making the business form assemblies. The mailing assemblies are suitable for manufacture either individually or as part of a continuous series or web of business form assemblies which can be processed through data processing or imprinting equipment prior to separation from each other.

17 Claims, 29 Drawing figures

Exemplary Claim Number: 16,17

Number of Drawing Sheets: 7

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BSPR: Pre-inserted mailers normally require a large volume to be cost efficient. The large volume users rarely keep "hard copy" records of transactions printed on the mailers since the information is normally available in computer storage. When the envelopes are run through a high-speed impact printer, the printing head strikes the front of the envelope at different surface areas thereof to image information on selected portions of the insert sheets or plies by use of selectively coated carbon or other image transfer means between the sheets. However, since all the information with the exception of the mailing address that is recorded on the insert need not be reproduced on the face of the envelope, a "record copy" is normally placed on top of the envelope, the "record copy" usually having a carbon patch only behind the location where the name and address of the addressee is printed so that the balance of the information is not imaged on the top surface of the envelope. Since, as noted above, the record copy is usually discarded, this creates additional waste and requires an additional time-consuming operation on a business forms decollator for its removal.

BSPR: In U.S. Pat. No. 3,477,194, which discloses a heat sealed thermoplastic package, an infrared heat source is used to seal the packages. The heat is not applied selectively and is only

concentrated in desired sealing regions by the use of a darker border printed on the package which is more receptive to the infrared radiation. Using the method of this patent to produce forms would heat all parts of the form to a temperature which would burst an encapsulated carbonless transfer medium and, therefore, ruin the form. If carbon paper were used, the carbon would melt and run or bleed and cause the pages or sheets to stick. Likewise, the method of sealing disclosed in this patent could not be used in conjunction with my invention for single and multi-ply non-impact printing disclosed in my U.S. patent application Ser. No. 19,150, which uses coatings which change color when heated to a threshold temperature. Furthermore, the heating method of this patent is comparatively slow and would not be capable of keeping up with current collating equipment which normally produces forms at approximately 200 to 750 forms per minute.

DRPR: FIG. 19 illustrates a flat pack of assemblies of letters with pre-inserted reply cards or envelopes made in accordance with the present invention and adapted to be processed through a matrix type computer printer or the like; and

DEPR: At least one of the sheets 12, 14 is provided on the inside surface thereof which faces the other of the sheets with a dormant adhesive 16. The dormant adhesive may either be in the nature of a coating of heat sensitive adhesive, applied to one of the sheets of the assembly 10 or may be in the nature of a separate sheet of thermoplastic material, as will be more fully described hereafter.

DEPR: Mailers which use inserts made from self-contained or self-imaging paper, or use carbon for imaging purposes normally exhibit some bruising or marking as a result of being processed through mail-handling equipment. This problem, which has existed with prior art mailers, can be particularly acute with use of the two-way mailer of FIGS. 14a-14b because the same insert or a portion of the insert 18a is processed twice. In order to eliminate the problem of bruising or marking, the present invention also contemplates the selective application of clear chemical dye coatings for the purpose of imaging data on the insert 18. Towards that end, it is contemplated, for example, that the surface of the thermoplastic sheet 16 which faces the insert be coated with a chemical (CB) coating while the surface of the insert which faces the thermoplastic sheet is coated with a chemical (CF) coating. Both of these chemical coatings are clear and must interact before a visible image appears. The dye coatings which can be used for this purpose are of the type marketed by the 3M Company and NCR-Appleton Company. Although the CF chemical dyes are presently only factory coated, the same or similar dyes can be printed on the front of the insert by using a material such as "Action Print" marketed by the 3M Company. While the use of such chemical dye coatings would not eliminate all bruising or marking, this problem would be totally eliminated once the insert has been reversed in the compartment for remailing. It is only during the original mailing, when the CB and CF coatings are in abutment with each other that any bruising at all is possible. Once the insert is reversed, the coatings are rendered inactive. An additional advantage of using two separate chemical dye coatings as aforementioned is that at present, self-contained papers are only offered by manufacturers in a limited number of weights, grades and colors. Separate CB coatings, which can be applied to any paper stock, would result in an unlimited variety of weight, grades and colors of papers which can be used.

US-PAT-NO: 5161735

DOCUMENT-IDENTIFIER: US 5161735 A

TITLE: Self-contained insert mailer

DATE-ISSUED: November 10, 1992

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bendel; Bruce	Lake Forest	IL	60045	N/A

US-CL-CURRENT: 229/303,229/300,229/69,229/92.3,229/92.8

ABSTRACT: A self-contained insert mailer includes at least two similarly sized and interconnected individual plies which are arranged in overlying relationship to form an outgoing mailer containing an outgoing envelope, one or more insert plies and, in some instances, a reply means. The mailer is folded along one or more outgoing envelope fold lines so that the front ply adhesively engages the back ply to define an outgoing envelope containing the insert plies therebetween. Where the mailer is folded along the outgoing envelope fold lines, the outgoing envelope has a height to length ratio which is between 1:1.3 and 1:2.5.

20 Claims, 8 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 3

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ABPL: A self-contained insert mailer includes at least two similarly sized and interconnected individual plies which are arranged in overlying relationship to form an outgoing mailer containing an outgoing envelope, one or more insert plies and, in some instances, a reply means. The mailer is folded along one or more outgoing envelope fold lines so that the front ply adhesively engages the back ply to define an outgoing envelope containing the insert plies therebetween. Where the mailer is folded along the outgoing envelope fold lines, the outgoing envelope has a height to length ratio which is between 1:1.3 and 1:2.5.

BSPR: In yet another principal aspect of the present invention, the front ply and the one or more insert plies of the mailer assembly include an image transfer coating on the rear faces thereof so that the billing information can be printed onto a mailer by an impact printer after assembly rather than prior to assembly. The billing information is transferred to the underlying plies. This allows the billing authority to print its own mailers, and eliminates the need for billing printing to be done offsite at the mailer assembly plant.

DEPR: The individual mailer 10 may include an outgoing envelope 54, a series of billing inserts 22, 23 and a back ply 70. This mailer embodiment includes five individual plies 20, 21, 22, 23 and 24 of generally equal size. The lines of weakening 19 extend transversely between the feed strips 14, 16 and divide a continuous sheet of plies into a series of detachably interconnected individual multiple ply mailers 10. A removable first ply 20 or flysheet may be disposed on top of the individual mailer adjacently overlying the plurality of plies 21-24 and in detachable

engagement therewith. This flysheet 20 may be used to contain preprinted customer address information 26 and billing or message information 27 on its front face 28 to serve as a record for the mailing authority. The flysheet 20 is typically detached or decollated from individual mailers after exiting from an impact printer. The flysheet 20 may contain conventional image transfer means on its rear face 29 in the designated billing, message and address information areas 26, 27, such as either a spot carbon coating or a carbonless transfer medium, to transfer the printed address and billing information onto one or more of the underlying mailer plies.

US-PAT-NO: 5253803

DOCUMENT-IDENTIFIER: US 5253803 A

TITLE: Reusable mailer

DATE-ISSUED: October 19, 1993

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chess; Stanley	Jerome	ID	N/A	N/A

US-CL-CURRENT: 229/305,229/306,229/314

ABSTRACT: A return mailer is provided in which the outgoing and reply addresses cannot be confused, and the mailer can be changed over from an outgoing mailer to a reply mailer with a minimum of effort. The mailer includes a number of plies including a first ply having an outgoing address visible on it, at least one insert ply, a second ply, and a third ply. A sealing agent, such as tape covered by a release sheet or rewettatable glue, is associated with one of the plies for sealing the plies of a reply configuration together. The second ply has a reply address printed on its outer, second face, and a portion of it is pivotally mounted to fold over the first ply. The reply configuration of the mailer includes the first, second, and third plies disposed with respect to each other so that the third ply is pivoted about its pivot portion to a position where the second face of the third ply is readily visible, and the outgoing address is no longer visible, the third ply cooperating with the sealing agent to form a reply envelope .

5 Claims, 9 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 3

----- KWIC -----

ABPL: A return mailer is provided in which the outgoing and reply addresses cannot be confused, and the mailer can be changed over from an outgoing mailer to a reply mailer with a minimum of effort. The mailer includes a number of plies including a first ply having an outgoing address visible on it, at least one insert ply, a second ply, and a third ply. A sealing agent, such as tape covered by a release sheet or rewettatable glue, is associated with one of the plies for sealing the plies of a reply configuration together. The second ply has a reply address printed on its outer, second face, and a portion of it is pivotally mounted to fold over the first ply. The reply configuration of the mailer includes the first, second, and third plies disposed with respect to each other so that the third ply is pivoted about its pivot portion to a position where the second face of the third ply is readily visible, and the outgoing address is no longer visible, the third ply cooperating with the sealing agent to form a reply envelope .

BSPR: According to a first aspect of the present invention, a return mailer is provided having different outgoing and reply configurations. The mailer comprises. An outgoing configuration comprising a plurality of plies, including a first ply having outgoing address indicia readily visible thereon, at least one insert ply, a second ply, and a third ply, the third ply having a first face visible in the outgoing configuration, and a second face opposite the first face and not visible in

the outgoing configuration. A sealing agent associated with one of the plies of the outgoing configuration for sealing plies of a reply configuration together. The third ply has reply address indicia printed thereon on the second face, the third ply pivotally mounted at a portion thereof to one of the first and second plies. And, a reply configuration including the first, second, and third plies disposed with respect to each other so that the third ply is pivoted about the pivot portion thereof to a position wherein the second face of the third ply is readily visible, and the outgoing address is no longer visible, the third ply cooperating with the sealing agent to form a reply envelope. The sealing agent may comprise tape covered with a release sheet (e.g. transfer tape), or rewettatable glue. A fly sheet may initially cover the first ply, having image transfer means for transferring the outgoing address indicia to the first ply when the fly sheet is impacted.

DEPR: An exemplary return mailer according to the present invention is shown generally by reference numeral 10 in FIG. 1. The mailer includes a fly sheet 11 which is removed before it is actually put into the mail, the fly sheet 11 having a carbon spot or like image transfer means 12 associated therewith so that when the fly sheet 11 is impacted on the top thereof by a typewriter, printer, or the like above the carbon spot or like image transfer means 12, the image is transferred onto the first ply 13 of the mailer 10 to provide outgoing address indicia, shown schematically at 14 in FIG. 1.